# Academic Calendars

## 2020 – 2021
### Fall Quarter 2020
- Quarter begins: September 28
- Instruction begins: October 1
- Veterans Day holiday: November 11
- Thanksgiving holiday: November 26–27
- Instruction ends: December 11
- Common final examinations: December 12–13
- Final examinations: December 14–18
- Quarter ends: December 18
- Christmas holiday: December 24–25
- New Year’s holiday: January 1–3
- Winter campus closure: TBD

### Winter Quarter 2021
- Quarter begins: January 4
- Instruction begins: January 4
- Martin Luther King, Jr. holiday: January 18
- Presidents’ Day holiday: February 15
- Instruction ends: March 12
- Common final examinations: March 13–14
- Final examinations: March 15–19
- Quarter ends: March 19
- Presidents’ Day holiday: February 15

### Spring Quarter 2021
- Quarter begins: March 24
- César Chávez holiday: March 26
- Instruction begins: March 29
- Memorial Day holiday: May 31
- Instruction ends: June 4
- Common final examinations: June 5–6
- Final examinations: June 7–11
- Quarter ends: June 11
- Commencement ceremonies: June 11–13

### Summer 2021
- Summer session begins: June 21
- Independence Day holiday: July 5
- Labor Day holiday: September 6
- Summer session ends: September 10

## 2021– 2022
### Fall Quarter 2021
- Quarter begins: September 20
- Instruction begins: September 23
- Veterans Day holiday: November 11
- Thanksgiving holiday: November 25–26
- Instruction ends: December 3
- Common final examinations: December 4–5
- Final examinations: December 6–10
- Quarter ends: December 18
- Christmas holiday: December 23–24
- New Year’s holiday: December 30–January 31

### Winter Quarter 2022
- Quarter begins: January 3
- Instruction begins: January 3
- Martin Luther King, Jr. holiday: January 17
- Presidents’ Day holiday: February 21
- Instruction ends: March 11
- Common final examinations: March 12–13
- Final examinations: March 14–18
- Quarter ends: March 18
- Martin Luther King, Jr. holiday: January 17

### Spring Quarter 2022
- Quarter begins: March 23
- César Chávez holiday: March 25
- Instruction begins: March 28
- Memorial Day holiday: May 30
- Instruction ends: June 3
- Common final examinations: June 4–5
- Final examinations: June 6–10
- Quarter ends: June 10
- Commencement ceremonies: June 10–12

### Summer 2022
- Summer session begins: June 20
- Independence Day holiday: July 4
- Labor Day holiday: September 5
- Summer session ends: September 9

## Online Publications
This [UCLA General Catalog](https://www.registrar.ucla.edu) is published annually online. See the [Registrar’s website](https://www.registrar.ucla.edu) for current detailed information about registration, enrollment, fees, deadlines, updated course descriptions, and other academic information. Courses offered each term can be viewed on the [Schedule of Classes](https://www.registrar.ucla.edu).
The UCLA General Catalog is published annually in PDF and HTML formats. Every effort has been made to ensure the accuracy of the information presented in the UCLA General Catalog. However, all courses, course descriptions, instructor designations, curricular degree requirements, and fees described herein are subject to change or deletion without notice. Department websites referenced herein are published independently and may not reflect approved curricula and courses information. Consult this Catalog for the most current, officially approved courses and curricula.

Other information about UCLA may be found in materials produced by the schools of Arts and Architecture; Dentistry; Education and Information Studies; Engineering and Applied Science; Law; Management; Medicine; Music; Nursing; Public Affairs; Public Health; and Theater, Film, and Television. Current graduate program information, including complete text for officially approved graduate programs and requirements, is available on the Graduate Division website.

Language of Instruction

UCLA is a premier American public research institution, and courses at UCLA are taught in the English language unless otherwise noted in the course description (for example, foreign language courses).

UCLA Accreditation

UCLA is accredited by the Western Association of Schools and Colleges (WASC) Senior College and University Commission; and by numerous special agencies. More information about UCLA accreditation is available at the UCLA Academic Planning and Budget accreditation web page.

University of California, Los Angeles

Los Angeles, California 90095-1361
Main telephone: 310-825-4321 (campus operator)
Speech- and hearing-impaired access: TTY 310-825-2833

For complete department and school address information, see the campus directory. For mailing address formats, see address standards for UCLA mail.
From the Chancellor

This Catalog describes the almost endless academic choices available to you at UCLA. Choose from 5,000 courses each term, 140 bachelor programs, 132 master’s and professional programs, 128 doctoral and professional programs, and 97 minors as you build a course of study that suits your interests and aspirations. As a world-class research university with strengths in disciplines from the arts to the sciences, UCLA offers you a remarkable range of academic possibilities. Additionally, more than 70 percent of our undergraduate classes have fewer than 30 students—so you can learn in smaller settings and get to know your professors and classmates.

UCLA is also a welcoming place for students from diverse backgrounds. Those admitted to our freshman class for 2020–21, for example, represent all 50 U.S. states and 116 countries. Like most Bruins, they have a drive for knowledge and are determined to make a difference wherever they go.

Our faculty of more than 4,700 is made up of renowned scholars who are highly regarded as leaders in their fields. At UCLA, we are proud that undergraduates, in addition to graduate students, have opportunities to study with top professors and conduct research under their guidance.

This Catalog includes opportunities that offer priority enrollment for lower-division students. Among these are Fiat Lux seminars, which are small classes in a broad range of subjects; clusters, which engage students in yearlong, team-taught interdisciplinary study of timely topics; and advanced research opportunities.

UCLA is entering its second century stronger than ever. I know it will remain a vibrant community of forward-looking achievers, who think outside traditional academic boundaries and share an exuberant sense of possibility to improve the world. We have accomplished so much in our first 100 years, and I look forward to seeing you continue this legacy of innovation throughout your time on this campus and far beyond.

I invite you to explore UCLA beyond the contents of this Catalog. Visit us on campus, or online.

Gene D. Block
Chancellor
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Majors and Degrees

College of Letters and Science

African American Studies Department
African American Studies .........................  BA, MA

African Studies Interdepartmental Program
African Studies ........................................ MA

American Indian Studies Interdepartmental Program
American Indian Studies .........................  BA, MA

Anthropology Department
Anthropology .......................................... BA, BS, MA, PhD

Archaeology Interdepartmental Program
Archaeology ........................................... MA, CPhil, PhD

Art History Department
Art History ............................................ BA, MA, PhD

Asian American Studies Department
Asian American Studies .........................  BA, MA

Asian Languages and Cultures Department
Asian Humanities .................................... BA
Asian Languages and Cultures ...............  MA, CPhil, PhD
Asian Languages and Linguistics ............  BA
Asian Religions ....................................... BA
Chinese .................................................... BA
Japanese ................................................... BA
Korean ....................................................... BA
Teaching Asian Languages ..................... MA

Atmospheric and Oceanic Sciences Department
Atmospheric and Oceanic Sciences ............ BS, MS, CPhil, PhD
Atmospheric and Oceanic Sciences/Mathematics .................. BS
Climate Science ..................................... BS

Bioinformatics Interdepartmental Program
Bioinformatics ....................................... MS, PhD

Chemistry and Biochemistry Department
Biochemistry .......................................... BS
Biochemistry, Molecular and Structural Biology ................ MS, CPhil, PhD
Chemistry .............................................. BS, MS, CPhil, PhD
Chemistry/Materials Science ..................... BS
General Chemistry .................................... BS

Chicana and Chicano Studies Department, César E. Chávez
Chicana and Chicano Studies .....................  BA, MA, PhD

Classics Department
Classics ................................................. MA, CPhil, PhD
Classical Civilization ..............................  BA
Greek ...................................................... BA, MA
Greek and Latin .....................................  BA
Latin ...................................................... BA, MA

Communication Department
Communication ..................................... BA, MS, PhD

Comparative Literature Department
Comparative Literature ............................ BA, MA, CPhil, PhD

Computational and Systems Biology Interdepartmental Program
Computational and Systems Biology .......... BS

Conservation of Archaeological and Ethnographic Materials Interdepartmental Program
Conservation of Archaeological and Ethnographic Materials .......... MA
Conservation of Material Culture ............... MS, PhD

Earth, Planetary, and Space Sciences Department
Earth and Environmental Science .............. BA
Engineering Geology ................................ BS
Geochemistry ........................................ MS, CPhil, PhD
Geology ................................................ BS, MS, CPhil, PhD
Geophysics .......................................... BS
Geophysics and Space Physics .................. MS, PhD

East Asian Studies Interdepartmental Program
East Asian Studies ................................... MA

Ecology and Evolutionary Biology Department
Biology .................................................. BS, MS, CPhil, PhD
Ecology, Behavior, and Evolution .............. BS
Marine Biology ....................................... BS

Economics Department
Applied Economics ................................. MAE
Business Economics ............................... BA
Economics ............................................ BA, MA, CPhil, PhD

English Department
American Literature and Culture ...............  BA
English .................................................. BA, MA, CPhil, PhD

Environment and Sustainability, Institute of the Center for Interdisciplinary Instruction
Environment and Sustainability ............... MS, PhD
Environmental Science ......................... BS
Environmental Science and Engineering ....... DEnv
French and Francophone Studies Department
French .................................................. BA
French and Francophone Studies .......... MA, CPhil, PhD
French and Linguistics ............................... BA

Gender Studies Department
Gender Studies ....................................... BA, MA, PhD

Geography Department
Applied Geospatial Information Systems and Technologies ......................... MACIST
Geography ......................................... BA, MA, CPhil, PhD
Geography/Environmental Studies ......... BA

Germanic Languages Department
German .................................................. BA
Germanic Language ................................. MA, CPhil, PhD
Nordic Studies ..................................... BA
Scandinavian ....................................... MA
Scandinavian Languages and Cultures .... BA

Global Studies Interdepartmental Program
Global Studies ........................................ BA

History Department
History ................................................ BA, MA, CPhil, PhD

Individual Field of Concentration
Individual Field of Concentration ............... BA, BS

Indo-European Studies Interdepartmental Program
Indo-European Studies ............................. MA, CPhil, PhD

Integrative Biology and Physiology Department
Physiological Science ............................... BS, MS

International and Area Studies Interdepartmental Program
African and Middle Eastern Studies .............. BA
Asian Studies ....................................... BA
European Studies ................................... BA
Latin American Studies ........................... BA

International Development Studies Interdepartmental Program
International Development Studies ............. BA

Italian Department
Italian .................................................. BA, MA, CPhil, PhD
Italian and Special Fields ......................... BA

Latin American Studies Interdepartmental Program
Latin American Studies .......................... MA

Labor Studies Interdepartmental Program
Labor Studies ........................................ BA

Linguistics Department
Applied Linguistics ................................. BA
Linguistics ........................................ BA, MA, CPhil, PhD
Linguistics and Anthropology ...................... BA
Linguistics and Asian Languages and Cultures .......... BA
Linguistics and Computer Science ................ BA
Linguistics and English ........................... BA
Linguistics and French .............................. BA
Linguistics and Italian ............................. BA
Linguistics and Philosophy ........................ BA
Linguistics and Psychology ....................... BA
Linguistics and Scandinavian Languages ....... BA
Linguistics and Spanish ........................... BA

Mathematics Department
Applied Mathematics ................................ BS
Data Theory .......................................... BS
Financial Actuarial Mathematics ............... BS
Mathematics ......................................... BS, MA, MAT, CPhil, PhD
Mathematics/Applied Science ................. BS
Mathematics for Teaching ........................ BS
Mathematics of Computation .................... BS

Mathematics/Economics Interdepartmental Program
Mathematics/Economics .......................... BS

Microbiology, Immunology, and Molecular Genetics Department
Microbiology, Immunology, and Molecular Genetics ........................... BS, MS, PhD

Molecular Biology Interdepartmental Program
Molecular Biology ..................................... MS, PhD

Molecular, Cell, and Developmental Biology Department
Molecular, Cell, and Developmental Biology ................................ BS, MA, CPhil, PhD

Molecular, Cellular, and Integrative Physiology Interdepartmental Program
Molecular, Cellular, and Integrative Physiology ................................ PhD

Near Eastern Languages and Cultures Department
Ancient Near East and Egyptology .............. BA
Arabic ............................................... BA
Iranian Studies .................................... BA
Islamic Studies ................................... MA, CPhil, PhD
Jewish Studies .................................... BA
Middle Eastern Studies ........................... BA
Near Eastern Languages and Cultures .......... MA, CPhil, PhD

Neuroscience Interdepartmental Program
Neuroscience ........................................ BS

Philosophy Department
Philosophy ....................................... BA, MA, CPhil, PhD

Physics and Astronomy Department
Astronomy and Astrophysics ..................... MS, MAT, PhD
Astrophysics ....................................... BS
Biophysics ......................................... BS
Physics .................................................. BA, BS, MS, MAT, PhD

Political Science Department
Political Science ...................................... BA, MA, CPhil, PhD

Psychology Department
Cognitive Science ...................................... BS
Psychobiology .......................................... BS
Psychology ............................................. BA, MA, CPhil, PhD

Slavic, East European, and Eurasian Languages and Cultures Department
Central and East European Languages and Cultures ........... BA
Russian Language and Literature........................... BA
Russian Studies .......................................... BA
Slavic, East European, and Eurasian Languages and Cultures ............. MA, CPhil, PhD

Social Science Interdepartmental Program
Social Science ........................................... MSS

Sociology Department
Sociology .............................................. BA, MA, CPhil, PhD

Spanish and Portuguese Department
Hispanic Languages and Literatures ....................... CPhil, PhD
Portuguese ............................................. MA
Portuguese and Brazilian Studies ........................... BA
Spanish .................................................. BA, MA
Spanish and Community and Culture ..................... BA
Spanish and Linguistics ................................ BA
Spanish and Portuguese ................................ BA

Statistics Department
Applied Statistics ..................................... MAS
Data Theory ........................................... BS
Statistics ................................................ BS, MS, CPhil, PhD

Study of Religion Interdepartmental Program
Study of Religion ..................................... BA

Human Genetics Department
Genetic Counseling ..................................... MS
Human Genetics ........................................ MS, PhD

Medicine Schoolwide Program
Medicine...................................................... MD

Microbiology, Immunology, and Molecular Genetics Department
Microbiology, Immunology, and Molecular Genetics ........ MS, PhD

Molecular and Medical Pharmacology Department
Molecular and Medical Pharmacology ..................... MS, PhD

Molecular, Cellular, and Integrative Physiology Interdepartmental Program
Molecular, Cellular, and Integrative Physiology ............ PhD

Neuroscience Interdepartmental Program
Neuroscience ............................................ PhD

Physics and Biology in Medicine Interdepartmental Program
Physics and Biology in Medicine ........................ MS, PhD

Graduate School of Education and Information Studies

Education Department
Education ................................................ MA, MEd, EdD, PhD
Educational Administration ............................... Joint EdD with UCI
Education and Social Transformation .................... BA
Special Education ....................................... Joint PhD with CSULA

Information Studies Department
Information Studies ..................................... PhD
Library and Information Science ........................... MLIS

Henry Samueli School of Engineering and Applied Science

Bioengineering Department
Bioengineering .......................................... BS, MS, PhD

Chemical and Biomolecular Engineering Department
Chemical Engineering ................................... BS, MS, PhD

Civil and Environmental Engineering Department
Civil Engineering ....................................... BS, MS, PhD

Computer Science Department
Computer Engineering .................................. BS
Computer Science ....................................... BS, MS, PhD
Computer Science and Engineering ......................... BS

Electrical and Computer Engineering Department
Computer Engineering .................................. BS
Electrical and Computer Engineering ....................... MS, PhD
Electrical Engineering .................................... BS

David Geffen School of Medicine

Computational Medicine Department
Biomathematics ......................................... MS, PhD
Clinical Research ....................................... MS

Human Genetics Department
Genetic Counseling ..................................... MS
Human Genetics ........................................ MS, PhD
## Engineering Schoolwide Programs

- Engineering ........................................... MEngr, MS, Engr
- Engineering — Aerospace .......................... MS
- Engineering — Computer Networking .......... MS
- Engineering — Electrical ............................ MS
- Engineering — Electronic Materials .............. MS
- Engineering — Integrated Circuits ............... MS
- Engineering — Manufacturing and Design ....... MS
- Engineering — Materials Science ................ MS
- Engineering — Mechanical ........................ MS
- Engineering — Signal Processing and Communications ... MS
- Engineering — Structural Materials ............. MS

**Materials Science and Engineering Department**
- Materials Engineering ............................. BS
- Materials Science and Engineering ............... MS, PhD

**Mechanical and Aerospace Engineering Department**
- Aerospace Engineering ........................... BS, MS, PhD
- Manufacturing Engineering ..................... MS
- Mechanical Engineering ......................... BS, MS, PhD

## Jonathan and Karin Fielding School of Public Health

**Biostatistics Department**
- Biostatistics ........................................... MS, PhD

**Community Health Sciences Department**
- Community Health Sciences ....................... MPH-HP, MS, PhD

**Environmental Health Sciences Department**
- Environmental Health Sciences ................... MS, PhD

**Epidemiology Department**
- Epidemiology ........................................... MS, PhD

**Health Policy and Management Department**
- Health Policy and Management ................... EMPH, MS, PhD

**Molecular Toxicology Interdepartmental Program**
- Molecular Toxicology ................................ PhD

**Public Health Schoolwide Programs**
- Public Health ........................................... MPH, DrPH

## Herb Alpert School of Music

**Ethnomusicology Department**
- Ethnomusicology ..................................... BA, MA, CPhil, PhD

**Global Jazz Studies Interdepartmental Program**
- Global Jazz Studies ................................... BA

**Music Department**
- Music ................................................. BA, MA, MM, DMA, CPhil, PhD
- Music Composition ................................... BA
- Music Education ............................ BA
- Music Performance ............................. BM

**Musicology Department**
- Music History and Industry ....................... BA
- Musicology ............................... BA, MA, CPhil, PhD

## Meyer and Renee Luskin School of Public Affairs

**Public Affairs Schoolwide Programs**
- Public Affairs ........................................... BA

**Public Policy Department**
- Public Policy ............................... MPP

**Social Welfare Department**
- Social Welfare ......................................... MSW, PhD

**Urban Planning Department**
- Urban and Regional Planning ...................... MURP
- Urban Planning ....................................... PhD

## John E. Anderson Graduate School of Management

**Management Department**
- Business Administration ......................... MBA, EMBA, FEMBA, GEMBA
- Business Analytics .................................. MS
- Financial Engineering ............................. MFE
- Management ........................................... MS, CPhil, PhD

## School of the Arts and Architecture

**Architecture and Urban Design Department**
- Architectural Studies ................................. BA
- Architecture .......................................... MArch, MA, PhD
- Architecture and Urban Design .................... MS

**Art Department**
- Art ................................................ BA, MFA

**Design/Media Arts Department**
- Design/Media Arts ................................... BA, MFA

**Individual Field**
- Individual Field ....................................... BA
World Arts and Cultures/Dance Department
  Culture and Performance  MA, PhD
  Dance  BA
  Choreographic Inquiry  MFA
  World Arts and Cultures  BA

School of Dentistry
Dentistry Department
  Dental Surgery  DDS
Oral Biology Section
  Oral Biology  MS, PhD

School of Law
Law Department
  Law  LLM, JD, SJD
  Legal Studies  MLS

School of Nursing
Nursing Department
  Nursing  BS, MS, MSN, PhD
  Nursing Practice  DNP

School of Theater, Film, and Television
Film, Television, and Digital Media Department
  Film and Television  BA, MA, MFA, CPhil, PhD
Individual Field
  Individual Field  BA
Theater Department
  Theater  BA, MFA
  Theater and Performance Studies  CPhil, PhD

Undergraduate Minors and Specializations

Minors
College of Letters and Science
  African American Studies
  African and Middle Eastern Studies
  African Studies
  American Indian Studies
  Ancient Near East and Egyptology
  Anthropology
  Applied Developmental Psychology
  Arabic and Islamic Studies
  Armenian Studies
  Art History
  Asian American Studies
  Asian Humanities
  Asian Languages
  Atmospheric and Oceanic Sciences
  Biomedical Research
  Brain and Behavioral Health
  Central and East European Studies
  Chicana and Chicano Studies
  Classical Civilization
  Cognitive Science
  Community Engagement and Social Change
  Comparative Literature
  Conservation Biology
  Digital Humanities
  Disability Studies
  Earth and Environmental Science
  East Asian Studies
  English
  Environmental Systems and Society
  Ethnomusicology
  European Studies
  Evolutionary Medicine
  Food Studies
  French
  Gender Studies
  Geochemistry
  Geography
  Geography/Environmental Studies
Geology
Geophysics and Planetary Physics
Geospatial Information Systems and Technologies
German
Global Health
Global Studies
Greek
Hebrew and Jewish Studies
History
History of Science, Technology, and Medicine
International Migration Studies
Iranian Studies
Israel Studies
Italian
Labor Studies
Latin
Latin American Studies
Lesbian, Gay, Bisexual, Transgender, and Queer Studies
Linguistics
Literature and Environment
Mathematical Biology
Mathematics
Mathematics for Teaching
Mexican Studies
Middle Eastern Studies
Neuroscience
Philosophy
Pilipino Studies
Portuguese and Brazilian Studies
Professional Writing
Russian Language
Russian Literature
Russian Studies
Scandinavian
Science Education
Social Thought
Society and Genetics
South Asian Studies
Southeast Asian Studies
Spanish
Spanish Linguistics
Statistics
Structural Biology
Study of Religion
Systems Biology
Graduate School of Education and Information Studies
Education Studies
Henry Samueli School of Engineering and Applied Science
Bioinformatics
Environmental Engineering
Herb Alpert School of Music
Music Industry
Musicology
John E. Anderson Graduate School of Management
Accounting
Entrepreneurship
Jonathan and Karin Fielding School of Public Health
Public Health
Meyer and Renee Luskin School of Public Affairs
Gerontology
Public Affairs
Urban and Regional Studies
School of the Arts and Architecture
Visual and Performing Arts Education
School of Theater, Film, and Television
Film, Television, and Digital Media
Theater

Computing Specializations

These departments in the College of Letters and Science offer a computing specialization to some or all majors. See the individual department section for details.

Chemistry
Communication
Ecology and Evolutionary Biology
Linguistics
Mathematics
Mathematics/Economics
Molecular, Cell, and Developmental Biology
Psychology
Sociology
Graduate Concurrent and Articulated Degrees

Inquiries about concurrent and articulated degree programs should be directed to graduate advisers in the departments and schools involved. Students should contact Graduate Admissions/Student and Academic Affairs for information on designing articulated programs.

Concurrent Degrees

Concurrent degree programs allow students to reduce the number of courses required for two degrees, since some courses may apply to both degrees.

- African American Studies Interdepartmental MA/Law JD
- African Studies Interdepartmental MA/Public Health MPH
- American Indian Studies Interdepartmental MA/Law JD
- Architecture MArch/Urban Planning MURP
- Asian American Studies Interdepartmental MA/Public Health MPH
- Asian American Studies Interdepartmental MA/Social Welfare MSW
- Community Health Sciences MPH/Urban Planning MURP
- Education MA, PhD, MEd, or EdD/Law JD
- Environmental Health Sciences MPH/Urban Planning MURP
- Latin American Studies Interdepartmental MA/Urban Planning MURP
- Management MBA/Computer Science MS
- Management MBA/Dentistry DDS
- Management MBA/Latin American Studies Interdepartmental MA
- Management MBA/Law JD
- Management MBA/Library and Information Science MLIS
- Management MBA/Medicine MD
- Management MBA/Nursing MSN
- Management MBA/Public Health MPH
- Management MBA/Public Policy MPP
- Management MBA/Urban Planning MURP
- Philosophy PhD/Law JD
- Public Health MPH/Law JD
- Public Health MPH/Public Policy MPP
- Public Health MPH/Social Welfare MSW
- Public Policy MPP/Law JD
- Public Policy MPP/Medicine MD
- Social Welfare MSW/Law JD
- Social Welfare MSW/Public Policy MPP
- Urban Planning MURP/Law JD

Articulated Degrees

Articulated degree programs permit no credit overlap; students must complete degree requirements separately for each degree.

- Latin American Studies Interdepartmental MA/Education MEd in Curriculum
- Latin American Studies Interdepartmental MA/Library and Information Science MLIS
- Latin American Studies Interdepartmental MA/Public Health MPH
- Medicine MD/Graduate Division health science major PhD
- Oral Biology MS or PhD/Dentistry DDS or Certificate
- Public Health MPH/Medicine MD
About UCLA

Few universities in the world offer the extraordinary range and diversity of academic programs that students enjoy at UCLA. Leadership in education, research, and public service make UCLA a beacon of excellence in higher education, as students, faculty members, and staff come together in a true community of scholars to advance knowledge, address societal challenges, and pursue intellectual and personal fulfillment.

As a public research university, the mission of UCLA is to create, disseminate, preserve, and apply knowledge to better society. Based on a foundation of learning and teaching, the mission also focuses on discovery, creativity, innovation, and civic engagement.

UCLA administration is led by its chancellor, provost, vice chancellors and vice provosts, and deans of the divisions and schools. Its Student Affairs division oversees programs and services that support student academic and personal success. Its Graduate division oversees recruitment and admissions, funding and appointments, and maintenance of high-quality standards in graduate programs. Through the Academic Senate, faculty share in the operation and management of UCLA.

UCLA is comprised of the College of Letters and Science—with its humanities, life sciences, physical sciences, social sciences, and undergraduate education divisions—and 12 professional schools: School of the Arts and Architecture; School of Dentistry; Graduate School of Education and Information Studies; Henry Samueli School of Engineering and Applied Science; School of Law; John E. Anderson Graduate School of Management; David Geffen School of Medicine at UCLA; Herb Alpert School of Music; School of Nursing; Meyer and Renee Luskin School of Public Affairs; Jonathan and Karin Fielding School of Public Health; and School of Theater, Film, and Television.

Education

The National Research Council Committee to Assess Research-Doctorate Programs evaluates the quality of the faculty in 212 American research universities approximately every 15 years. Of the 62 doctorate degree disciplines studied in the 2011 evaluation, 33 UCLA academic departments ranked among the top 10 in the country and 12 ranked among the top 20.

Distinguished faculty members at UCLA include Nobel prizewinners, Guggenheim fellows, Sloan fellows, and Fulbright scholars, as well as numerous members of the National Academy of Sciences and the American Academy of Arts and Sciences. In fact, UCLA consistently places among the leading universities nationwide in the number of these prestigious awards granted to its faculty members.

This remarkable pool of talent is shared across the College and 12 professional schools. Undergraduate and graduate degree programs are offered by the College and by schools focused on engineering, fine arts, media, nursing, performing arts, and public affairs. The other professional schools offer graduate degree programs and undergraduate minors.

Undergraduates may earn Bachelor of Arts and Bachelor of Science degrees in one of 132 disciplines; graduate students may earn one of 130 master/professional and 128 doctorate/professional degrees.

Academic programs undergo continuous review and evaluation to maintain their excellence, and new degree programs are added as they are approved by the Academic Senate or the Regents.

Research

Pushing the boundaries of the known, UCLA researchers—faculty members and students, both graduate and undergraduate—venture every day into uncharted worlds from the molecular to the galactic.

Whether tracing the roots of urban decay, pioneering new drug therapies for cancer, or revealing a black hole at the center of our galaxy, research at UCLA is advancing the frontiers of knowledge.
Among the leading research universities in the world, in 2018-19 UCLA received $1.27 billion in extramural grants and contracts to support its research. Each year it hosts hundreds of postdoctoral scholars who share its facilities. UCLA laboratories have seen major breakthroughs in scientific and medical research. Its study centers have helped foster understanding among the various cultures of the world. And its ongoing pursuits of new knowledge in vital areas continue to improve the quality of life for people around the world.

Faculty members teach both undergraduate and graduate courses and, through their research, create knowledge as well as transmit it. At UCLA, students are taught by the people making the discoveries. They exchange ideas with faculty members who are authorities in their fields and, even as undergraduate students, are encouraged to participate in research to experience firsthand the discovery of new knowledge.

Service

As a public university, serving the community is one of the greatest commitments UCLA makes. Undergraduate and graduate programs, research activities, community outreach programs, and grass-roots participation by students, faculty, staff, and alumni help to forge a partnership between UCLA and the entire Los Angeles region.

With the Ronald Reagan UCLA Medical Center, UCLA furthered its tradition of medical outreach and assures the highest quality of care to Los Angeles and the world. The School of Dentistry, with clinics on campus and in Venice, offers free dental care and treatment to those in need at community health fairs. The Rape Treatment Center—located at the UCLA Medical Center, Santa Monica—offers 24-hour care to victims. Faculty and students in the Fielding School of Public Health work in communities around the world to address disparities underlying differences in the health status of individuals, and the School of Nursing offers care to the poor and homeless through its nurse-managed health center at the Union Rescue Mission. UCLA also supports K-12 enhancement programs such as the Music Partnership Program in the Herb Alpert School of Music, which funds UCLA students to be academic and musical mentors for at-risk youth.

Students can get involved in the community in many different ways. The UCLA Volunteer Center coordinates year-round programs and annual events, such as UCLA Volunteer Day where more than 6,500 Bruins perform service work at over 40 community partner sites across Los Angeles. BruinCorps tutors under-performing youth in disadvantaged communities.

As UCLA gives to the community, Los Angeles gives something back. UCLA arts and cultural programs, for example, attract more than half a million people each year, drawn by everything from world-class acts performing at Royce Hall to screenings of classic films from the School of Theater, Film, and Television archives. These relationships create opportunities for partnerships and growth that ensure the pre-eminence of UCLA in the twenty-first century and beyond.

History of UCLA

In 1880—with just 11,000 inhabitants—the pueblo of Los Angeles convinced the state government to establish a normal school (teachers college) in Southern California. Enthusiastic citizens contributed between $2 and $500 to purchase a site; and on August 29, 1882, the Los Angeles Branch State Normal School welcomed its first students in a Victorian building that had been erected on the site of an orange grove.

By 1914 Los Angeles had grown to a city of 350,000, and the school moved to new quarters—a Hollywood ranch off a dirt road that later became Vermont Avenue. In 1919 the school became the Southern Branch of the University of California, and offered two years of instruction in letters and science. Third- and fourth-year courses were soon added; the first class of 300 students was graduated in 1925, and two years later the Southern Branch had earned its new name: University of California at Los Angeles. In 1958, at was replaced by a comma and the official name became University of California, Los Angeles.

Continued growth mandated a site that could support a larger campus, and in 1927 ground was broken in the chaparral-covered hills of Westwood. The four original buildings—Royce Hall, College Library, Chemistry Building, and Physics-Biology Building—formed a lonesome cluster in the middle of 400 empty acres. The campus hosted 5,500 students its first term in 1929. The UCLA master’s degree was established in 1933 and the doctorate in 1936. UCLA was fast becoming a full-fledged university that offered advanced study in almost every field.

Following World War II, UCLA began a period of spectacular growth: in 25 years its enrollment tripled to 27,000 students. The campus undertook what would become a $260 million building program that included residence halls, parking structures, laboratories, more classrooms, service buildings, athletic and recreational facilities, and a teaching hospital that is now one of the largest and most highly respected in the world. In the late 1950s and 1960s, UCLA was at the center of many milestones: the first open-heart surgery in the western U.S. was performed at its medical
center; the first of 10 NCAA men’s basketball championships was won; and it became the first ARPANET node, heralding the birth of the Internet.

The rest of the twentieth century, through the opening of the twenty-first, was peppered with notable UCLA events: Nobel prizes awarded to multiple faculty; breakthroughs in treatments for cancer, brain aneurysms, and organ transplants; explosive growth in research grants; more than 30 Oscars awarded to creative alumni; completion of a new medical center; expansion of campus housing to accommodate nearly all incoming freshmen; and becoming the first university to win 100 NCAA team championships.

At the start of the 2010s, UCLA began construction on a series of new residence halls with the goal of expanding guaranteed on-campus housing to all students. In 2016, the Herb Alpert School of Music became the 12th professional school at UCLA and first independent music school in the UC system. UCLA celebrated its centennial in 2019-20, raising $5.49 billion toward student scholarships, faculty support, research programs, and campus facilities. Today, UCLA is home to over 45,700 students and 4,300 faculty members. With 215 campus buildings, classes are held in more than 85 facilities. As UCLA passes its 100th anniversary, it remains firmly rooted in Westwood but its reach is beyond borders, with programs and collaborations that span the country, the globe, and even outer space.

University of California System

UCLA is part of the University of California (UC) system, which traces its origins to 1868 when Governor Henry H. Haight signed the Organic Act that provided for the first California “complete university.” Classes began the next year at the College of California in Oakland. In 1873 the first Berkeley campus buildings were completed, and the university moved into its new home. The following June, bachelor’s degrees were conferred on 12 graduates.

Today, the University of California is one of the largest and most renowned centers of higher education in the world. Its 10 campuses span the state, from Davis in the north to San Diego in the south. In between are Berkeley, San Francisco, Merced, Santa Cruz, Santa Barbara, Los Angeles, Riverside, and Irvine. All campuses adhere to the same admission guidelines and high academic standards, yet each has its own distinct character and academic individuality. Riverside, for example, excels in the plant sciences and entomology; Davis has a large agricultural school and the only UC veterinary medicine program; San Diego offers excellent oceanography and marine biology programs; and San Francisco is devoted exclusively to the health sciences. Among the campuses are six medical schools and four law schools, as well as schools of architecture, business administration, education, engineering, and many others.

The UC campuses have a combined enrollment exceeding 285,000 students, over 75 percent of them California residents. About one-fifth study at the graduate level. Some 150 laboratories, extension centers, and research and field stations strengthen teaching and research while supplying public service to California and the nation. The collections of over 100 UC libraries on the 10 campuses are surpassed in size in North America only by the U.S. Library of Congress collection.

The UC faculty is internationally known for its distinguished academic achievements. On its 10 campuses the University of California has 29 living Nobel laureates, and membership in the National Academy of Sciences is the largest of any university in the country.

The UC system is governed by a Board of Regents whose regular members are appointed by the Governor of California. In addition to setting general policy and making budgetary decisions for the UC system, the Regents appoint the President of the University of California, the 10 chancellors,
and the directors and deans who administer the affairs of the individual campuses and divisions of the University of California. The Regents delegate authority in academic matters to the Academic Senate, which determines academic policy for the University of California as a whole. The Senate, composed of faculty members and certain administrative officers, determines conditions for admission and granting of degrees, authorizes and supervises courses and curricula, and advises UC administrators on budgets and faculty appointments and promotions. Local divisions of the universitywide Academic Senate determine academic policy for each campus. Students also participate in policymaking at campus and system levels.

Campus Life

Just six miles from the ocean, UCLA lies in one of the most attractive areas of Southern California. It is bordered on the north by the protected wilderness of the Santa Monica Mountains and on the south by Westwood Village. Besides lecture halls and classrooms, campus facilities include libraries, studios, theaters, and a planetarium; athletic fields, famed Pauley Pavilion, and recreation/exercise space; gardens and outdoor spaces accented by the Inverted Fountain and Janss Steps; the Hill, home to campus residence halls and common spaces; and its renowned medical center.

Unique Setting

UCLA is nestled in the hills of Westwood, with the Romanesque architecture of its early buildings a backdrop for diverse campus settings. Bruin Walk continually echoes with the chatter of students and vendors, but nearby, the botanical gardens provide a serene escape. While a hip-hop band energizes lunchtime crowds in Bruin Plaza, a classical recital may be taking place in Schoenberg Music Building, and students contemplating a Rodin or Lachaise in the Murphy Sculpture Garden may be unaware of a political rally organizing in Meyerhoff Park. With its traditional appearance and temperate climate, it is not unusual to find campus locations being used for filming television and movies and hosting large events.

To give a feel for the dynamic atmosphere at UCLA, tours for prospective undergraduates are offered by Undergraduate Admission.

Large Campus with a Comfortable Feel

The general campus population, some 41,803 students, is enriched by an additional 3,982 in the health sciences schools of dentistry, medicine, nursing, and public health. While such numbers sound daunting, UCLA offers orientation sessions and innovative academic assistance programs to help acclimate new students. Through a range of services and social programs, new students quickly meet people with common interests in their academic departments, residence halls, or clubs and organizations. Even athletic events help to cement relationships as the campus comes together to celebrate Bruin victories.

Large lecture groups exist, especially in introductory courses; however, 85 percent of lower-division lecture classes in 2018-19 had under 200 students, and UCLA is striving to further reduce class size. Large lecture classes typically include discussion sections of about 25 students, or smaller seminars and laboratory classes. There is an overall ratio of one faculty member for approximately 18 students.

Most UCLA faculty members set aside office hours for students and appreciate the opportunity for informal conversation. Professors are often aided by graduate student teaching assistants (TAs).

Dynamic Student Body

Students at UCLA pride themselves on academic excellence. The fall quarter 2019 entering freshman class had an average high school GPA of 4.41, with an average SAT Reasoning Test composite score of 1,385 out of a possible 1,600.

One of the highest UCLA priorities is to advance the diversity of its students, faculty, staff, and administrators. The UCLA student population—nearly equally divided between men and women—yields the wide range of opinion and perspective essential to a great university.

Although most students are from California, they come from all 50 states and 138 foreign countries to study at UCLA. Ethnic minorities comprise 73.0 percent of the
undergraduates and 67.0 percent of the graduate student population, and international students and scholars presently number over 12,000, making this one of the most popular American universities for students from abroad.

Retention and Graduation

Retention and graduation rates in undergraduate programs at UCLA are consistently among the highest in the nation. At least 97 percent of all students entering as freshmen and 95 percent of all students entering as transfers regularly return to enroll at UCLA for the second academic year and beyond.

For entering freshmen, 81.7 percent graduate within four years, and 91.4 percent within six years. The average time to degree is 12 or fewer quarters (i.e., four or fewer years). For entering transfer students, 70.2 percent graduate within two years and 94 percent of all entering transfer students eventually graduate from UCLA.

More information on campus statistics is available from Academic Planning and Budget.

Academic Programs

UCLA has a tradition of advancing higher education and the common good through excellence in scholarship, research, and public service. Academic excellence, faculty distinction, and a comprehensive curriculum are hallmarks of the UCLA experience. The College of Letters and Science and 12 graduate and professional schools present an extraordinary richness and diversity of teaching programs.

Academic programs offered at UCLA span the breadth and depth of over 200 disciplines and areas of study. Lecture, discussion, laboratory, research, and creative courses are supplemented by seminars, honors programs, specialized freshman clusters, internships, and education abroad opportunities. Instruction takes place in many unique venues, including specialized classrooms, computer and scientific laboratories, performance and studio spaces, and off-campus settings. Students and faculty members themselves mirror the cultural and racial diversity of Los Angeles. Academic programs are described in detail in the Curricula and Courses chapter.

The International Education Office, Summer Sessions, UCLA Extension, and UCLA International Institute offer academic and professional resources to UCLA and the greater Los Angeles community, as well as to the international community.

Study Abroad

Study abroad and student exchange are exciting and broadening experiences that enrich any educational curriculum. The International Education Office (IEO) works to facilitate international education by serving as the campuswide portal for the development and administration of study abroad and student exchange activity. It supplies assistance to academic units seeking to develop study abroad programs, and it collaborates with the Academic Senate and departments to ensure academic oversight of study abroad programs. The IEO also coordinates student advising services for undergraduate and graduate students interested in studying abroad.

The IEO administers several programs, including the UC Education Abroad Program (UCEAP), Summer Travel Study, Non-UC Programs, and various student exchange agreements.

Education Abroad Program

The UC Education Abroad Program (UCEAP) offers short- and long-term study programs in cooperation with over 115 host universities and colleges in more than 42 countries throughout the world. Participating students remain registered at their home campuses while studying abroad and receive full academic credit for their work. With careful planning, study abroad should not delay progress toward graduation. While on EAP, students are eligible for financial aid.

Summer Travel Study

Summer Travel Study offers short-term summer programs on five continents. Summer Travel Study programs offer UC credit, the promise of an exciting summertime adventure, and intensive learning experiences taught by distinguished UCLA faculty members. Over 17 academic departments offer Summer Travel Study programs that include
from 8 to 16 quarter units of UC credit. Financial aid is available for qualified UC students. Registration begins in November for the following summer on a first-come, first-served basis. Summer Travel Study is open to all students at any academic level. There is no grade-point average requirement to participate.

Non-UC Programs

Students may also study abroad through other universities and programs not affiliated with UCLA. The IEO strongly recommends that all students considering non-UC programs contact the IEO early in the planning process about UCLA policies on planned academic leave (PAL), transfer credit, financial support, and more. UC financial aid is not available for study abroad on non-UC programs.

Summer Sessions

UCLA offers various ways to earn UCLA credit during the summer—academic courses, summer institutes, travel study, and more. Hundreds of courses from over 70 departments are offered in three-, six-, eight-, nine-, and 10-week sessions. Summer Institutes offer an innovative approach to teaching and learning that combines UCLA coursework with practical training in real-world situations, preparing students for their future careers. Some programs are offered specifically for advanced high-school students, affording them an opportunity to experience the academic rigor of UCLA. Summer Travel Study allows students to study various subjects as part of an exciting and challenging travel experience. All Summer Sessions offerings can be explored online.

Although visiting students are welcome to enroll, admission to summer sessions does not constitute admission to UCLA in either undergraduate or graduate standing. Students who wish to attend UCLA in regular academic terms must follow admission procedures described in the Undergraduate Study and Graduate Study chapters.

Regularly enrolled UCLA undergraduate students may attend summer sessions for full unit and grade credit. Summer session coursework is recorded on the UCLA transcript, and grades earned are computed in the grade-point average. Students should check with a College or school counselor about applying these courses toward degree requirements, and about any limitations the College or school may impose on coursework completed in summer sessions. UCLA financial aid is available to qualified UCLA students.

Regularly enrolled UCLA graduate students may, with department approval, take courses offered in summer sessions for credit toward a master’s or doctorate degree; consult a graduate adviser in advance about this possibility. Summer session courses may also satisfy the academic residence requirement for master’s or doctorate degrees.

Unlike enrollment in regular terms, students may attend another college institution for credit while they are enrolled in summer sessions. Registration information is available from the Summer Sessions office.

UCLA Extension

With over 84,000 adult student enrollments each year, UCLA Extension is one of the largest university continuing education programs in the world. It is designed to bring the benefits of UCLA—its scholars, research, and resources—to the community and the state as a whole.

Many of the 5,500 UCLA Extension classes are innovative and experimental in content, format, and teaching methods. Credit and noncredit courses are offered in nearly every academic discipline, in many interdisciplinary areas, and in emerging fields.

In addition, Extension offers special programs each term on topical issues as well as those of ongoing public concern. Many noncredit Extension courses offer the opportunity to earn Continuing Education Units (CEUs), widely used for relicensure and other professional/career-related purposes. Although registering for Extension courses does not constitute admission to UCLA, degree credit earned through Extension may apply toward the UCLA bachelor’s or master’s degree; consult a College or school counselor or graduate adviser before enrolling. For more information, refer to UCLA Extension under Transfer Credit in the Academic Policies chapter.

UCLA International Institute

The UCLA International Institute promotes interdisciplinary education and research on world regions and global issues. Its more than 30 centers and programs foster innovative research and offer educational opportunities on virtually every region of the world. The institute seeks to internationalize UCLA curricula and enable students to graduate as global citizens. Every fall, it leads a popular all-campus celebration of International Education Week.

The institute offers six undergraduate majors including global studies, international and area studies, and international development studies; as well as ten undergraduate minors, including global health; and three graduate programs. These academic programs annually enroll nearly 1,000 students. Together with its centers, the institute serves the entire campus through a wide range of academic events, scholarships, and grants. It acts as a gateway to the world for UCLA and the global city of Los Angeles, hosting free public events, research conferences, cultural programs, and K-12 outreach. The institute also brings together faculty from the College, professional schools, and research
centers across the UCLA campus on collaborative global and regional reserve initiatives.

In addition to its 19 area-based research centers—including its newest center, the Promise Armenian Institute—the institute also houses the Burkle Center for International Relations, Center for the Study of International Migration, Center for World Languages, Center for Buddhist Studies, Fulbright Enrichment Program, and International Visitors Bureau, among other units. The U.S. Department of Education has designated the centers focused on the Near East and Southeast Asia as National Resource Centers. The National Heritage Language Resource Center is the nation’s first specialized center for heritage language teaching.

**Research Programs**

At any given time, more than 6,000 funded research programs are in progress at UCLA. Interdisciplinary Organized Research Units, research centers, institutes, and laboratories focus on key research in a specific area.

**Organized Research Units**

Organized Research Units (ORUs) are campuswide research programs. Members come from more than one department and usually from more than one school, college, or division.

**American Indian Studies Center**

The American Indian Studies Center (AISC) serves as an educational and research catalyst. It includes a library, postdoctoral fellowship programs, a publishing unit that produces books and a quarterly journal, and a student/community relations unit. AISC is one of four ORUs overseen by the Institute of American Cultures (IAC).

**Asian American Studies Center**

The Asian American Studies Center (AASC) seeks to increase knowledge and understanding of the experiences of Asian and Pacific Islander peoples in America, and promotes the development of material resources related to Asian American studies. The center includes a library, publications unit, student/community projects unit, and postdoctoral fellowship programs. AASC is one of four ORUs overseen by the Institute of American Cultures (IAC).

**Brain Research Institute**

The Brain Research Institute (BRI) has one of the largest programs for neuroscience research and education in the country, with approximately 300 scientists from nearly 30 departments involved in every aspect of neuroscience research from molecular organization to human behavior. The BRI offers facilities with new technologies for research and training; and sponsors affinity groups, conferences, and symposia to strengthen ties among neuroscientists. Public service activities include an elementary-and-secondary-school outreach program and a joint educational program with UCLA Extension.

**Center for European and Russian Studies**

The Center for European and Russian Studies (CERS) develops and coordinates teaching and research on Russia and the successor states of the former Soviet Union—and western European countries—through conferences, lectures, seminars, and academic exchange programs with European and Russian institutions. It also funds advanced instruction in languages such as Czech, Hungarian, Romanian, Polish, and Serbian/Croatian, and offers fellowships to graduate students in European area studies.

**Center for Medieval and Renaissance Studies**

The Center for Medieval and Renaissance Studies (CMRS) supports the research activities of some 125 faculty members in 24 academic disciplines dealing with the development of civilization between A.D. 300 and 1650. Programs include appointing visiting professors, organizing conferences, and supporting departments in inviting lecturers. The center sponsors two journals: Viator, with emphasis on intercultural and interdisciplinary studies; and Comitatus, with articles by graduate students and recent PhD graduates.
Center for Seventeenth- and Eighteenth-Century Studies

The Center for Seventeenth- and Eighteenth-Century Studies organizes scholarly programs and workshops, publishes conference results, provides long- and short-term fellowships to students and scholars, offers graduate research assistantships and master classes, and organizes public programs and classical music concerts.

The center administers the William Andrews Clark Memorial Library, located in the West Adams neighborhood of Los Angeles, that specializes in seventeenth- and eighteenth-century British works. The library also has a renowned collection centering on Oscar Wilde and his era, and significant holdings of modern fine printing and Western Americana.

Center for the Study of Women

The Center for the Study of Women (CSW) draws on the expertise of more than 200 faculty members from 10 professional schools and 34 departments. To facilitate faculty research, the center organizes conferences and lecture series on feminist theory, administers research grants, and offers an affiliation for research and visiting scholars. The center sponsors working groups; produces calendar-of-events posters; and hosts graduate programs and an annual graduate student research conference.

Chicano Studies Research Center

The Chicano Studies Research Center (CSRC) promotes the study and dissemination of knowledge about the experience of people of Mexican descent and other Latinos in the U.S. The center supports interdisciplinary and collaborative research and the analysis, understanding, and articulation of issues critical to the development of Chicano and Latino communities in the U.S. It seeks to establish and maintain relationships with communities with similar academic and research interests at the state, national, and international levels. The center also includes a library, academic press, and grant fellowship programs. CSRC is one of four ORUs overseen by the Institute of American Cultures (IAC).

Cotsen Institute of Archaeology

The Cotsen Institute of Archaeology (CIoA) studies and seeks to understand the human past through artifacts, analysis of field data, and the creation of archives. The institute—the only one of its kind in the U.S.—coordinates facilities for more than 30 researchers, and many graduate students and volunteers, in 11 associated academic departments. Facilities include the Ceramics Research Group collections, Cotsen Digital Archive, Lithic Analysis Research Group collections, Moche Archive, Rock Art Archive, and many laboratories such as the Channel Islands Laboratory, East Asian Laboratory, Human Origins Laboratory, and Zooarchaeology Laboratory. It publishes the findings of scholars from UCLA and other archaeology centers and supplies a forum for the public presentation of archaeological discoveries and advances.

Crump Institute for Molecular Imaging

The Crump Institute for Molecular Imaging (CIMI) brings together physical, biomathematical, chemical, biological, and clinical scientists and students to merge the principles of imaging with those of molecular and cellular biology, genetics, and biochemistry. The imaging domains range from the molecular organization of viruses and cellular subunits to the biological processes of organ systems in the living human. A major focus is the development and use of imaging technologies to collect, analyze, and communicate biological data. The institute has research and educational programs for visiting scientists, postdoctoral scholars, and PhD graduate students that include the development of multimedia computer-based learning technologies.

Gustave E. von Grunebaum Center for Near Eastern Studies

The von Grunebaum Center for Near Eastern Studies (CNES) coordinates research and academic programs related to the Near East. It supports the degree program in African and Middle Eastern Studies. Center resources include the largest faculty, one of the most comprehensive library holdings, and the richest variety of Near and Middle Eastern studies courses of any institution in the Western Hemisphere. The center conducts publication, community outreach, and scholarly exchange programs.

Institute for Research on Labor and Employment

The interdisciplinary research program of the Institute for Research on Labor and Employment (IRLE) studies employment relationships including labor markets, labor law, labor and management relations, equal employment opportunity, occupational safety and health, and related issues. Its UCLA Labor Center offers social policy and employment relations programs to the public, unions, and management. The academic unit of the institute oversees the Labor and Workplace Studies minor.

Institute of Geophysics and Planetary Physics

The Institute of Geophysics and Planetary Physics (IGPP) is a multicampus research unit of the University of Califor-
nia; the branch at UCLA researches climate dynamics, geophysics, geochemistry, space physics, biochemistry, and biology. Research topics include the nature of the Earth, moon, and other planetary bodies; global and regional environmental change; the origin of terrestrial life; dynamical properties of the sun and solar wind; and the nonlinear dynamics of complex systems. Facilities include analytical laboratories in geochemistry, meteoritics, glaciology, petrology, geochronology, archaeology, and the origins of life; laboratories for experiments in fluid dynamics and high-pressure physics; developmental laboratories for instrumentation in space physics and seismology; and computational laboratories for large-scale numerical modeling.

**Intellectual and Developmental Disabilities Research Center**

The Intellectual and Developmental Disabilities Research Center (IDDRC) supplies laboratories and clinical facilities for research and training in intellectual and developmental disabilities. Interdisciplinary activities range from anthropological studies to molecular aspects of inherited metabolic diseases.

**James S. Coleman African Studies Center**

The Coleman African Studies Center (ASC) coordinates research on and teaching about Africa in the humanities, social sciences, and natural sciences, as well as in the schools of Arts and Architecture; Education and Information Studies; Law; Medicine; Public Affairs; Public Health; and Theater, Film, and Television. The center sponsors public lectures, seminars, publications, and academic exchanges with African institutions, and an outreach service to the Southern California community.

**Jules Stein Eye Institute**

The Stein Eye Institute is one of the best-equipped centers for research and treatment of eye diseases in the world. This comprehensive facility is dedicated to the preservation of vision and prevention of blindness, the care of patients with eye disease, and education in the broad field of ophthalmology. Out-patient, inpatient, and surgical treatments are available.

The Doris Stein Eye Research Center houses clinical facilities as well as new research and training programs concentrating on major eye diseases worldwide.

The Edie and Lew Wasserman Eye Research Center houses outpatient surgery clinics; faculty offices; and refractive, oculoplastic, and cataract services.

**Latin American Institute**

The Latin American Institute (LAI) is a major regional, national, and international resource on Latin America and hemispheric issues. The institute sponsors and coordinates research, academic and public programs, and publications on Latin America in the humanities, social sciences, and professional schools; and links its programs and activities with developments in the field and in other institutional settings. By combining instruction, research, and service—and by encouraging multidisciplinary and interdisciplinary approaches—the institute promotes the use of UCLA Latin American resources for the benefit of the campus, the broader community, and the public at large.

**Molecular Biology Institute**

The Molecular Biology Institute (MBI) promotes molecular biology research and teaching at UCLA, with emphasis on genomics, proteomics, and chemical biology. The institute houses the laboratories of 200 faculty members from 30 UCLA departments and the Institute for Genomics and Proteomics, as well as the administration of the Molecular Biology Interdepartmental PhD Program and the Graduate Programs in Bioscience consortium.

**Plasma Science and Technology Institute**

The Plasma Science and Technology Institute (PSTI) is dedicated to research of plasma physics, fusion energy, and the application of plasmas in other disciplines. Students, professional research staff, and faculty members study basic laboratory plasmas, plasma-fusion confinement experiments, fusion engineering and nuclear technology, computer simulations and the theory of plasmas, space plasma physics and experimental simulation of space plasma phenomena, advanced plasma diagnostic development, and laser-plasma interactions. They also study the use of plasma in applications ranging from particle accelerators to the processing of materials and surfaces used in microelectronics or coatings.

**Ralph J. Bunche Center for African American Studies**

The Bunche Center for African American Studies (CAAS) conducts and sponsors research on the African American experience, supports the African American studies curriculum, publishes research results, and sponsors community service programming. CAAS is one of four ORUs overseen by the Institute of American Cultures (IAC).
UCLA-DOE Institute for Genomics and Proteomics

The UCLA-DOE Institute for Genomics and Proteomics, funded through a Department of Energy (DOE) contract, conducts research in bioenergy, carbon capture, microbial genomics, and structural and functional studies of organisms and their constituents. Institute faculty members have joint appointments in academic departments and teach at both undergraduate and graduate levels. Major facilities include a biomedical cyclotron; advanced scanning equipment; and macromolecular crystallization, nuclear magnetic resonance, protein expression, and X-ray crystallography facilities.

Specialized Research Centers, Laboratories, and Institutes

Additional research centers, institutes, and laboratories advance scholarship in all fields. The breadth of research conducted on campus is reflected in diverse undertakings from behavior to computing, demography to disease, and language to politics. This sampling of current research entities offers a view into the scope of research units.

Social Sciences

California Center for Population Research
Center for Study of Urban Poverty
National Center for Research on Evaluation, Standards, and Student Testing
UCLA Anderson Forecast

Health Sciences

Fernald Child Study Center
Jonsson Comprehensive Cancer Center
Mary S. Easton Center for Alzheimer’s Disease Research
UCLA AIDS Institute

Engineering and Physical Sciences

Center for Energy Science and Technology Advanced Research
Collective on Vision and Image Sciences
Institute for Pure and Applied Mathematics
UCLA Logic Center

Galleries and Museums

Museums, galleries, and gardens offer eclectic resources ranging from the ancient to the avant-garde, helping to make UCLA the leading arts and cultural center in the West.

Fowler Museum at UCLA

The Fowler Museum at UCLA is internationally known for the quality of its collections. They encompass the arts and material culture of much of the world, with particular emphasis on West and Central Africa; Asia and the Pacific; and the Americas, past and present. It supports UCLA instruction and research and sponsors major exhibitions, lecture programs, and symposia. The museum is open to the public Wednesday through Sunday.

Grunwald Center for the Graphic Arts

Housed in the UCLA Hammer Museum, the Grunwald Center for the Graphic Arts holds a distinguished collection of over 45,000 prints, drawings, photographs, and artists’ books, including nearly 10,000 works from the prestigious Armand Hammer Daumier and Contemporaries Collection. A study and research facility for the benefit of students and the community, the center’s permanent holdings include significant European and American examples from the fifteenth century to the present. It is particularly noted for its collection of German Expressionist prints and works on paper by Matisse and Picasso, as well as the Richard Vogler Cruikshank Collection and the Frank Lloyd Wright Collection of Japanese prints. The center is open only by appointment.

Franklin D. Murphy Sculpture Garden

Situated on a picturesque five-acre expanse that spans the heart of north campus, the Murphy Sculpture Garden contains a collection of over 70 major works by Arp, Butterfield, Calder, Falkenstein, Hepworth, Lachaise, Lipchitz, Matisse, Moore, Noguchi, Rodin, Smith, Zuniga, and many other late nineteenth- and early twentieth-century masters. All works in this distinguished collection are private gifts to UCLA. Tours may be arranged.

Meteorite Collection and Gallery

UCLA has the largest collection of meteorites on the West Coast and the fifth largest in the U.S. Many of the most
important meteorites are displayed in the Meteorite Gallery located in 3697 Geology. The collection and gallery are a major resource for cosmochemical research and the teaching of planetary science.

New Wight Gallery
The New Wight Gallery is an exhibit space for visual arts, including student and faculty exhibitions, housed in 1100 Broad Art Center.

UCLA Hammer Museum
The Hammer Museum regularly presents its collection of impressionist and post-impressionist paintings by such artists as Monet, Pissarro, Sargent, Cassatt, and Van Gogh. The museum organizes and presents major changing exhibitions devoted to examinations of historical and contemporary art in all periods. Cultural programming—including children’s performance and storytelling series, music, poetry readings, and lunchtime art talks—are presented throughout the week.

Libraries
The UCLA Library, a campuswide network of libraries serving programs of study and research in many fields, is among the top 10 academic research libraries in North America. The total collections number more than 12 million volumes, 100,000 current serial titles, 950,000 e-books, and 700 subscription databases.

Reference librarians are available in all library units to answer questions about using online systems and to provide assistance with reference and research topics.

Students locate and identify materials through web-based library information systems. The UCLA Library catalog contains records for all its holdings and other campus collections, including the Archive Research and Study Center of the Film and Television Archive, Chicano Studies Research Center Library, Ethnomusicology Archive, Social Science Data Archive, Instructional Media Collections and Services, and William Andrews Clark Memorial Library. It also includes library item location and circulation status.

Other available catalogs include the UC Libraries Catalog (Melvyl), WorldCat, Center for Research Libraries, Online Archive of California, numerous abstracting and indexing databases, and gateways to other systems. The Melvyl Catalog contains information on library holdings at all 10 UC campuses.

While continuing to develop and manage collections of traditional printed materials, the UCLA Library also makes a number of digital resources available for campus use through the library site. These include electronic reserves and electronic journals, texts, reference resources, periodical indexes, and abstracts.

Arts Library
Housed in 1400 Public Affairs Building, the Arts Library has more than 300,000 books on architecture, architectural history, art, art history, design, fashion and costume, film, television, photography as fine art, studio art, theater, urban design, and allied disciplines. It also contains the Elmer Belt Library of Vinciana, a special collection of rare books and incunabula about Leonardo da Vinci and related materials in Renaissance studies. Performing Arts Special Collections, housed in the Young Research Library, contain noncirculating materials including the Artists’ File; archival records of major Southern California motion picture studios and television production companies; scripts from film, television, and radio; animation art; personal papers of writers, directors, and producers; photographs and production stills; and posters, lobby cards, press kits, and West Coast theater playbills.

Charles E. Young Research Library
The Young Research Library (YRL) primarily serves graduate research in the humanities, social sciences, education, public affairs, government information, and maps. Most of its collections are arranged in open stacks. The building also houses reference, circulation, graduate reserve, and periodicals services and the Microform and Media Service, with microcopies of newspapers, periodicals, and other materials. UCLA Library Special Collections contains rare books and pamphlets, primarily in the humanities, social sciences, and visual arts, from the fifteenth to twentieth century; Univer-
Eugene and Maxine Rosenfeld Management Library

Located in the Anderson Graduate School of Management complex, the Rosenfeld Management Library houses materials on accounting information systems, arts management, business history, corporate history, entrepreneurship, finance, general management and management theory, industrial relations, international and comparative management, management information systems, management strategy and policy, marketing, operations, research, production and operations management, public/not-for-profit management, and real estate.

Hugh and Hazel Darling Law Library

The Darling Law Library collects published case decisions, statutes, and codes of the federal and state governments of the U.S. and other common law jurisdictions, legal treatises and periodicals in Anglo-American and international law, and appropriate international and comparative law holdings. The Law Library reports to the dean of the School of Law. It contains over 600,000 print volumes and over 35,000 electronic titles.

Louise M. Darling Biomedical Library

The Darling Biomedical Library, located in the Center for Health Sciences, serves all the UCLA health and sciences departments and schools and the Ronald Reagan UCLA Medical Center. Its collections focus on materials related to medicine, nursing, dentistry, public health, physiological sciences, biology, molecular biology, chemistry, biochemistry, zoology, plant sciences, psychology, and life sciences, as well as rare works in the history of health and life sciences, botanical illustration, and Arabic and Persian medical manuscripts. It contains over 683,778 print volumes and thousands of journal subscriptions.

Music Library

The collections of the Music Library in the Schoenberg Music Building include books, music scores, sheet music, video and sound recordings, microforms, and interactive media on Western music history and criticism; world music styles, cultures, and traditions; and music theory, aesthetics, philosophy, and organology. Performing Arts Special Collections, housed in the Young Research Library, include rare printed and manuscript books, scores, and opera librettos; personal papers of prominent Southern California composers, performers, and writers on music; and archives of film, television, and radio music.

Powell Library

Powell Library features collections and services in support of the undergraduate curriculum in the College of Letters and Science (humanities and social, life, and physical sciences). Course reserve materials—including books, articles, audiotapes, homework solutions, lecture notes, and Academic Publishing Service Readers—are available for loan. The Campus Library Instructional Computing Commons (CLICC), located on the first floor of Powell Library, gives
students access to computers and multimedia equipment; and Night Powell offers study space in a late-night reading room. There are Inquiry Laboratories with research assistance and Undergraduate Writing Center services.

Richard C. Rudolph East Asian Library

Located in the Young Research Library, the Rudolph East Asian Library collects Chinese, Japanese, and Korean language materials in the humanities and social sciences. The collection is particularly strong in Japanese Buddhism, religion, Chinese and Japanese fine arts, Chinese archaeology, premodern history and classical literature on both China and Japan, and Korean literature and religion.

Science and Engineering Library

The Science and Engineering Library (SEL) collections on engineering, mathematics, and the physical sciences are housed in two separate locations. SEL/Boelter in Boelter Hall houses materials on aeronautics, astronomy, and atmospheric sciences; bioengineering; chemical, civil, electrical, environmental, manufacturing, mechanical, and nuclear engineering; computer science and electronics; energy technology; mathematics; metals and materials; pollution; and statistics. SEL/Geology in the Geology Building houses materials on geology, geophysics, geochemistry, space physics, planetary science, regional geology, paleobiology, micropaleontology, invertebrate paleontology, ore deposits, geomorphology, hydrology, chemical oceanography, and all U.S. Geological Survey publications of western U.S. state geological surveys.

Special Archives and Collections

In addition to the extensive collections of the UCLA Library, a rich array of other information resources is independently managed by individual UCLA departments and centers.

Cultural Center Collections

The Bunche Center for African American Studies Library and Media Center contains materials reflecting the African American experience in the social sciences, arts, and humanities. The American Indian Studies Center Library houses a collection on American Indian life, culture, and state of affairs in historical and contemporary perspectives.

The Asian American Studies Center Library/Reading Room features Asian American and Pacific Islander resources. Materials related to Chicano and Latino cultures are housed in the Chicano Studies Research Center Library. The William Andrews Clark Memorial Library contains rare books, manuscripts, and other noncirculating materials on English culture (1641 to 1800). The English Reading Room features a noncirculating collection of British and American literature, literary history, and criticism.

Film and Television Archive

The Film and Television Archive is the world’s largest university-based collection of motion pictures and broadcast programming. The archive holdings of over 350,000 motion pictures, 160,000 television programs, and 27 million feet of newsreel footage serve the UCLA community and national and international constituencies.

The Motion Picture Collection is the country’s largest collection after the Library of Congress. Among its outstanding collections are 27 million feet of Hearst Metrotone News film dating back to 1919. Other noteworthy holdings include studio print libraries from Twentieth-Century Fox, Paramount Pictures, Warner Brothers, Sony/Columbia Pictures, Republic Pictures, RKO, New World Pictures, and Orion Pictures. Special collections document the careers of William Wyler, Hal Ashby, Tony Curtis, Rosalind Russell, Stanley Kramer, Cecil B. DeMille, Harold Lloyd, Charlton Heston, Rock Hudson, and other persons of prominence in the American film industry.
The **Television Collection** is the nation’s largest university-based collection of television broadcast materials. Its titles include kinescopes, telefilms, and videotapes spanning television history from 1946 to the present, with emphasis on drama, comedy, and variety programming. A special collection of over 100,000 news and public affairs programs is also maintained.

The archive exhibition program presents evening screenings and discussions that focus on archival materials, new work by independent filmmakers, and international films.

The **Archive Research and Study Center (ARSC)** in Powell Library offers on-site viewing of the Film and Television Archive collections, and research consultation to students, faculty, and researchers.

### Instructional Media

**Instructional Media Collections and Services**, located in Powell Library, is the central UCLA resource for collection and maintenance of educational and instructional media. Materials from the collection are loaned to regularly scheduled UCLA classes and may be rented by organizations and individuals from the campus community and beyond. Staff members monitor compliance with UCLA and UC guidelines and federal copyright law governing the use of video recordings. Reference books from educational and feature-film distributors are available. Staff members assist in researching media on any subject and obtaining materials from outside sources.

The **Instructional Media Laboratory** offers access to course- or textbook-related audio, interactive, and video programs. Students, assigned by faculty members to study specific supplementary materials, may learn at their own pace and time.

### Other Collections

The **Ethnomusicology Archive** houses over 150,000 sound and audiovisual recordings of folk, ethnic, and non-Western classical music. The **Social Science Data Archive** contains a collection of statistical databases for the social sciences. The UCLA Lab School **Gonda Family Library** features contemporary materials for children from kindergarten through junior high school and adult works on children’s literature.

## Parks, Reserves, and Natural Science Resources

The geography of Southern California is conducive to research in the natural sciences. This diverse region is a natural laboratory supported by numerous UCLA resources for study.

### Biological Collections

The **Biological Collections** of the Ecology and Evolutionary Biology Department include marine fishes from the Eastern Pacific and Gulf of California; and birds and mammals primarily from the Western U.S., Canada, Mexico, and Central America. The department also maintains a more limited collection of amphibians, reptiles, and fossil vertebrates.

### Division of Laboratory Animal Medicine

The **Division of Laboratory Animal Medicine** is responsible for the procurement, husbandry, and general welfare of animals required for teaching and investigative services. It also administers the campus veterinary medical and husbandry programs.

### Mildred E. Mathias Botanical Garden

The **Mathias Botanical Garden** is a living museum with one of the most important botanical collections in the U.S. With specimens from all over the world, the seven-acre expanse on south campus is home to over 3,000 types of plants in a wide range of environments. The botanical garden also has a research herbarium containing 180,000 dried plant specimens. School and community group tours are available, as are individual guided tours.

### Stunt Ranch Santa Monica Mountains Reserve

The University of California founded the UC Natural Reserve System (NRS) in 1965 to preserve undisturbed natural areas representing the state’s vast ecological diversity for students, teachers, and researchers from public and private educational institutions to use as outdoor classrooms and living laboratories. The **Stunt Ranch Santa Monica Mountains**
Reserve, administered by the Los Angeles campus, officially joined the UC NRS in November 1995. The 310-acre site is a 40-minute drive from UCLA and includes fine examples of chaparral and oak woodland ecosystems. The reserve lends itself to programs that focus on the natural ecosystems and issues of resource management in the urban/wildland interface. Undergraduate and graduate courses in the departments of Anthropology; Earth, Planetary, and Space Sciences; Ecology and Evolutionary Biology; Geography; Physics and Astronomy; and the Institute of the Environment and Sustainability utilize Stunt Ranch and other NRS sites.

**UCLA Health System**

Consisting of Ronald Reagan UCLA Medical Center; UCLA Medical Center, Santa Monica; Resnick Neuropsychiatric Hospital at UCLA; UCLA Mattel Children’s Hospital; and the UCLA Medical Group, with wide-reaching primary- and specialty-care offices, UCLA Health is among the most comprehensive and advanced health care systems in the world, and is consistently ranked among the top hospitals in the nation and the West.

From its level-one trauma center and intensive-care units to The BirthPlace Westwood, the Ronald Reagan UCLA Medical Center on campus is equipped with the latest medical advances to provide world-class patient care. The UCLA Medical Center, Santa Monica is home to the UCLA Rape Treatment Center, which serves as a national model for the treatment of rape victims and their families.

**Student Services**

Like a small city, UCLA has its own police department and fire marshal, an equivalent to the phone company, health center, corner restaurants, and shops. Hundreds of services for the campus community facilitate academic and personal endeavors.

**Study Services**

From academic advising to advanced computer support, UCLA study services give students the tools they need to achieve academic success.

**Academic Counseling**

Many sources of academic counseling are available. Faculty advisers and counselors in the College and each school help students with major selection, program planning, academic difficulties, degree requirements, and petitions.

Advisers in each department counsel undergraduates concerning majors offered and their requirements, and possible career and graduate school options (see the College and Schools and Curricula and Courses chapters). In addition, graduate advisers are available in each department to assist prospective and currently enrolled graduate students.

**Computer Laboratories**

Student computer laboratories are supported through the Campus Library Instructional Computing Commons (CLICC), a collaborative effort of the Humanities Technology, Social Sciences Computing, Center for the Advancement of Teaching, and Powell Library. Some 15 computer laboratories are available throughout the campus, each with computers, peripherals, software, and services that cater to specific areas of study. See the departments listed above or Information Technology Services IT resources for more information.

**Course Readers**

ASUCLA Course Reader Solutions supplies custom course readers for faculty in both print and e-book formats, obtaining copyright authorizations each year. The office is located in the Textbooks department on the A level of Ackerman Union.
Course Websites
The Instructional Enhancement Initiative (IEI) assures that all UCLA undergraduate nontutorial courses offer an individual course website for faculty members, teaching assistants, and enrolled students. The sites facilitate the distribution of supplementary course materials, lecture notes, homework assignments, research links, and electronic communication, including virtual office hours and class bulletin boards for interactive question-and-answer sessions. Instructors decide which of these online capabilities are best suited to their course websites. Many course websites are available through the Common Collaboration and Learning Environment (CCLE).

Disabilities and Computing Program
The Disabilities and Computing Program (DCP) supplies adaptive technology and information-access support and services to students, faculty, and staff with disabilities. Applications include voice input, Braille, large print, screen-reading software, and learning disability software. Consulting and training for individuals and departments are available. The program also offers Web accessibility evaluations and guidelines.

Internet
UCLA IT Services is the campus Internet service provider for UCLA students, faculty, and staff; and a vehicle for accessing campus network communication services. Bruin OnLine services include access to the campus backbone network and the Internet, e-mail accounts, Google Apps for UCLA, Box, and personal web hosting. Limited wireless Internet access is available on campus to anyone with a wireless enabled laptop or mobile device. Utility software can be downloaded from the IT Support Services website. Help desk services are available.

MyUCLA
MyUCLA is the easiest way for students to gain real-time access to their academic, financial, and personal records. The site is designed with an intuitive visual interface to walk students through procedural steps. MyUCLA offers a large number of services.

Students use the Class Planner to create plans prior to enrollment and are able to share these plans with counselors. MyUCLA also allows students to check enrollment appointments; view real-time enrollment counts; find classes and enroll; exchange or drop classes; change units and grade type; and view their study list, which includes information on class meeting times, final examinations, classmates, gradebook, textbooks, and class websites.

MyUCLA is used to declare candidacy and nonattendance, view Degree Audits, order transcripts and diplomas, change address information, view term grades and calculate grade-point average, find information on holds, order commencement tickets, access BruinBill and tax information, view financial aid awards and notices, access UCLA Google e-mail accounts. The MyUCLA Message Center contains a database of answers and allows students to correspond with campus departments. MyUCLA also links to important communications regarding registration and UCLA policies.

Other features include notifications; voting in student association elections; personal calendar and event reservations; and links to UCLA online resources.

Students can access MyUCLA from Sunday noon through Tuesday 1 a.m., and Tuesday through Saturday from 6 a.m. to 1 a.m. the next day, including holidays. MyUCLA Features contains a full list of features.

Health and Safety Services
Arthur Ashe Student Health and Wellness Center
The Arthur Ashe Student Health and Wellness Center in Westwood Plaza is a full-service medical clinic available to all registered UCLA students. Most services are subsidized by registration fees, and a current BruinCard is required for service. Its clinical staff of physicians, nurse practitioners, and nurses is board certified. It offers primary care, specialty clinics, and physical therapy. The center has its own laboratory and radiology sections. It operates the Bruin
Health Pharmacy and U See LA Optometry in nearby Ackerman Union. Visits, core laboratory tests, X-rays, and preventive immunizations are all prepaid for students with the University of California Student Health Insurance Plan (UCSHIP).

The cost of services received outside the Ashe Center, such as emergency room services, is each student’s financial responsibility. Students are required to purchase medical insurance either through the UCLA-sponsored UCSHIP or other plans that provide adequate coverage. Adequate medical insurance is a condition of registration. See Registration in the Undergraduate Study and Graduate Study chapters.

Contact the Ashe Center for specific information on its primary care, women’s health, immunization, health clearance, optometry, travel medicine, and mind-body clinics, as well as dental care available to students at discounted rates. For emergency care when the Ashe Center is closed, students may obtain treatment at the Ronald Reagan UCLA Medical Center emergency room on a fee-for-service basis.

**Mental Health Services**

Services for mental health range from routine counseling and psychotherapy to crisis counseling.

**Counseling and Psychological Services**

*Counseling and Psychological Services* (CAPS) offers short-term personal counseling and psychotherapy in 221 Wooden Center West, 310-825-0768.

Psychologists, clinical social workers, and psychiatrists assist with situational stresses and emotional problems from the most mild to severe. These may include problems with interpersonal relationships, academic stress, loneliness, difficult decisions, sexual issues, anxiety, depression, or other concerns affecting the personal growth of students.

In addition, *Campus Assault Resources and Education* (CARE) counselors—individuals who provide information, support, and resources for members of the UCLA community who have been raped, sexually assaulted, stalked, or involved in a dating or domestic violence incident—can discuss options and alternatives, help identify and assist in contacting the most appropriate support services, and answer any questions that may arise.

Service is confidential and available to regularly enrolled students. Students are seen individually by appointment or may choose from a number of groups offered each term. Emergency and walk-in counseling is also available.

**Student Safety and Security**

For police, fire, or medical emergencies, call 911 from any campus phone. For nonemergency information, call UCLA Police at 310-825-1491.

The police department offers a free *evening escort* service every day of the year from dusk to 1 a.m. Uniformed community service officers (CSOs)—specially trained UCLA students—walk students, staff, faculty, and visitors between campus buildings, local living areas, and Westwood Village.

The free *UCLA Safe Ride* service—formerly Evening Van Service—offers a safe, accessible, and convenient mode of transportation around campus at night. Vans transport students between 26 locations on and off campus, Monday through Thursday from 7 p.m. to 12 a.m. Pick-up and drop-off locations are selected from an available list on the TapRide app.

*UCLA Campus Assault Resources and Education* (CARE) Prevention and Education Services—including workshops, self-defense classes, counseling, and referrals—increase physical and psychological preparedness and heighten awareness of the complex issues of rape, sexual assault, and relationship violence.
UCLA Consultation and Response Team (CRT) is a group of professional staff members charged with responding to reports of students in distress, with representatives from the College, Dean of Students, Counseling and Psychological Services, Residential Life, and UCLA Police.

The Center for Prehospital Care offers cardiopulmonary resuscitation (CPR) and basic emergency care courses, which can be organized most days and times.

The Office of Environment, Health, and Safety (EH&S) works to reduce workplace hazards on campus and to promote safety at all levels of the UCLA community. EH&S is a consulting resource for UCLA departments and personnel who want to learn how to make the workplace safe. It handles requests for safety information and training, regulatory interpretation and applicability, approval for potentially hazardous procedures, resolution of safety problems, and surveillance and monitoring of persons and workplaces.

Associated Student Services

Founded when UCLA opened in 1919, Associated Students UCLA (ASUCLA) delivers services to the campus community through student government, student media, and services and enterprises. Every registered UCLA student is a member of ASUCLA.

Student Government

Many facets of student life at UCLA are sponsored or organized by student government. Getting involved in the decision-making process is rewarding and offers avenues of expression students may not find in other aspects of their university experience.

Graduate Students Association

The Graduate Students Association (GSA) is the official organization representing UCLA graduate and professional students in academic, administrative, campus, and statewide areas. GSA appoints or elects graduate student members to important campus organizations and committees including the Student Fee Advisory Committee and Academic Senate committees. It sponsors graduate student orientation; the Graduate Student Resource Center and Graduate Writing Center; and various graduate student journals, programs, and social events, including the Melnitz Movies film program.

Undergraduate Students Association

Undergraduate student government is embodied in the Undergraduate Students Association (USAC), is comprised of elected officers as well as appointed administrative, alumni, and faculty representatives. Every UCLA undergraduate student is a member of USA.

USA activities offer services to the campus and surrounding communities, and give students the opportunity to participate in and benefit from multiple programs. For example, its programs tutor youths and adults, address health needs of ethnic communities, combat poverty and homelessness, and better the environment.

Campus Events

Each year approximately 40,000 students, faculty, and staff attend programs of the Campus Events Commission (CEC), including a film program, speakers program, and performances by dozens of outstanding entertainers.

The Speakers Program brings entertainers, politicians, and literary figures to campus and presents two annual awards—the Jack Benny Award for comedic excellence and the Spencer Tracy Award for outstanding screen performance. Speakers and awardees have included notables as varied as Bill Gates, Whoopi Goldberg, and Tom Hanks.

The Concert Program brings new and popular performing artists like Rage Against the Machine or A Tribe Called Quest to UCLA for free and affordably priced concerts.

The Cultural Affairs Commission sponsors art exhibits in the Kerckhoff Hall Art Gallery, the JazzReggae Festival, Bruin Bash, Hip Hop Congress, and Worldfest.

Publications, Web, and Broadcast Media

Student publications and media offer a training ground for aspiring writers, journalists, photographers, and media managers while serving the communication needs of the campus community. Most publications offices are in Kerckhoff Hall. Information and applications are available online.

Daily Bruin

The Daily Bruin, with a circulation of 9,000, is one of the largest daily newspapers in Los Angeles. As the principal outlet for campus news, the Bruin is published each weekday of the academic year (once a week during the summer) and is distributed free from kiosks around campus and local areas. Students work as reporters, editors, designers, photographers, videographers, and radio reporters, as well as advertising sales representatives and marketing account executives. New staff members are welcome every quarter.

Newsmagazines

Seven print newsmagazines reflecting the diversity of the campus community are published each term. Al-Talib, Fem, Ha’Am, La Gente, Nommo, OutWrite, and Pacific Ties deal
respectively with issues relevant to the Muslim; feminist; Jewish; Chicano, Latino, and Native American; African American; lesbian, gay, bisexual, transgender, and queer; and Asian communities. Each includes news and features on political and cultural affairs both on and off campus. Prospective staffers are welcome.

Online Media
Student Media supports the Bruinwalk.com community portal. Features include UCLA professor reviews, used book trading, reviews of apartments near UCLA, and a campus calendar.

UCLAradio
UCLAradio broadcasts live over the Internet and features college alternative, hip-hop, jazz, and world music. It also covers select Bruin football, basketball, and baseball games and airs a lineup of sports talk shows. Studios are in Ackerman Union; all positions, including on-air, news staff, and advertising representatives, are open to students.

Yearbook
The UCLA yearbook, BruinLife, is one of the largest student publication efforts on campus. It contains photographs and information on undergraduate students, graduating seniors, athletic teams, fraternities and sororities, and campus activities. Students who would like to participate may contact the yearbook staff.

Restaurants
ASUCLA operates more than a dozen restaurants and 10 coffee houses on campus, assuring a range of eating options from Italian to sushi. From the residence halls to the student union, a restaurant is never far. Hours vary, especially during summer and holidays. Locations of all the restaurants are posted online.

UCLA Store
The UCLA Store has six locations on campus. Author signings, sales, and other special events are announced in the Daily Bruin or on the UCLA Store site.

The UCLA Store—Ackerman Union has eight departments. Textbooks carries required and recommended texts for most undergraduate and many graduate courses, and operates a buyback service so students can sell used texts. BookZone offers reference books and a wide selection of titles in literature, science, history, and technical disciplines, including those by faculty authors. Computer Store carries personal computers, peripherals, accessories, and software at low academic prices. Essentials offers school and office supplies, including printer consumables. BearWear specializes in UCLA emblematic merchandise. Fast Track carries active sportswear and accessories for men and women. Beautique stocks makeup, Clinique skin care, and fashion accessories. Market is a convenience store, with snacks, health and beauty aids, gifts, and greeting cards. Ashe-Center-operated U See LA Optometry and Bruin Health Pharmacy are also in Ackerman Union.

UCLA Store—Health Sciences specializes in books and supplies for students in dentistry, medicine, nursing, public health, and related areas. UCLA Store—Lu Valle Commons carries art supplies and books, as well as textbooks and supplies for all on-campus Extension courses and selected academic programs (architecture and urban design, art, design, film, information studies, law, management, public policy, social welfare, theater, urban planning). North Campus Shop, South Campus Shop (Court of Sciences), Energy Zone (Wooden Center) and Hill Top Shop in Sunset Village are convenience store locations.

Other Services and Enterprises
ASUCLA oversees a variety of other services ranging from a post office to a hair salon. Most are located in Ackerman Union.

Students preparing to graduate can use the Campus Photo Studio for their senior yearbook portraits. Graduation Etc. sells and rents caps, gowns, and hoods for degree ceremonies; and offers announcements, diploma mounting, and other graduation-related products and services.

Bruin Custom Print offers copying; binding; and banner, poster, and t-shirt printing. The shop streamlines the process involved in printing custom specialty products that need UCLA licensing and trademark clearance.
Student Life Services
From housing to transportation, basic student needs are facilitated by services designed to enhance all aspects of student living.

Banking
Automated teller machines representing several major banks are located in Ackerman Union, and near restaurants and shops around campus.
The University Credit Union has an office in West Los Angeles and a branch office in Ackerman Union.

BruinCard
The UCLA BruinCard is a mandatory campuswide identification card that can electronically confirm student status and eligibility for services. Supportive photo identification—such as a driver’s license or state ID, passport, or military ID—is required when the card is issued.
The primary BruinCard benefit is convenience. It is a versatile card that serves the following functions: confirmation of student status; ID card for faculty, staff, and students; residence hall access and meal card; laundry, library, and recreation card; debit card (if activated) for purchases at campus stores and restaurants on and off campus; and discounted access to Santa Monica and Culver City bus lines.
Students with an outstanding financial, academic, or administrative hold may not receive BruinCard services until the hold is released by the initiating office. Information on outstanding holds and initiating offices is available on MyUCLA.
The BruinCard center is located in 123 Kerckhoff Hall. See BruinCard to check account balance, make deposits, view recent transactions, and report lost or stolen cards.

Bruin Resource Center
The Bruin Resource Center (BRC) in the Student Activities Center can help students navigate the campus and its many services by directing them to the correct office or personnel to meet their specific needs.
The center offers services to all UCLA students, including specialized services for transfer and re-entry students, students who are transitioning out of foster care, student parents, and veterans. Additional offerings include workshops and academic courses to help students develop practical skills and knowledge to succeed at UCLA.
The BRC also houses the Veterans Resource Office, which offers services specifically designed to assist students who are U.S. armed forces veterans or current military members.

Career Center
The UCLA Career Center, located in the Strathmore Building, offers career planning and support free to all UCLA students.

Career Planning and Exploration
Career advisers offer assistance in exploring career options, evaluating graduate and professional school programs, and developing skills to conduct a successful job search. In addition, advisers can offer information on internship opportunities and how to develop a professional network. A variety of workshops are offered year-round to help students become career-ready.

Employment Assistance
Students looking for part-time, temporary, or seasonal employment to help finance their education and develop their skills, can find listings through Handshake. Handshake is an online platform that connects UCLA students with thousands of internships, jobs, and career opportunities.
Students can sign up to participate in on-campus interviews for internships and jobs. Annual career fairs and special events offer additional opportunities to meet employers.

Center for Accessible Education
The Center for Accessible Education (CAE) in A255 Murphy Hall offers academic support services to regularly enrolled students with documented permanent or temporary disabilities in compliance with Section 504 of the Rehabilitation Act of 1973, the Americans with Disabilities Act (ADA) of 1990, and UC and UCLA policies. Services include campus orientation and accessibility, notetakers, reader service, sign-language interpreters, registration assistance, test-taking facilitation, special parking assistance, real-time captioning, assistive listening devices, on-campus transportation, adaptive equipment, support groups and workshops, tutorial referral, special materials, housing appeals, referral to the Disabilities and Computing Program, and processing of California Department of Rehabilitation authorizations. There is no fee for any of these services. All contacts and assistance are handled confidentially.
For information, see Disabilities and Computing Program under Study Services.

Central Ticket Office
Tickets for UCLA events are available at the Central Ticket Office (CTO) in the James West Alumni Center. As part of its service, the CTO offers students with current BruinCards discount tickets to campus athletic and cultural events and local movies. Students may also purchase tickets to off-
campus events through Ticketmaster, as well as student discount tickets for Los Angeles-area buses.

**Child Care**

UCLA Early Care and Education (ECE) operates three accredited child care centers near UCLA and student housing. Care is available for children two months to six years old at most centers. Fees depend on the age of the child. A limited number of state grants and partial scholarship subsidies is available for eligible student families.

University Parents Nursery School is a UCLA-affiliated, parent-participation, multicultural cooperative school for two- through five-year-old children of UCLA students, faculty, and staff. It is located in the University Village Child Care Complex.

**Dean of Students/Student Conduct**

The Office of the Dean of Students in Murphy Hall helps students, either directly or by referral, with whatever needs they might have. Direct services include general counseling; sending emergency messages to students; and assisting in understanding UCLA and UC policies and procedures, including grievance procedures regarding student records, discrimination, and student debts.

The office publishes official notices in the *Daily Bruin* at various times during the year. Such notices are important, and all students are held responsible for the information in them.

The Student Conduct office administers campus discipline and enforces the standards of citizenship that students are expected to follow at UCLA. Standards involve complying with the policies and regulations governing this campus and being aware that violation of those policies or regulations can result in disciplinary action. Refer to Student Conduct Policies in Appendix A for more information.

**International Student Services**

International student services, based in Bradley International Hall, offer support for the UCLA international community, particularly for nonimmigrant students. An online orientation program helps international students become familiar with visa regulations, campus life at UCLA, and life in the U.S. Programs throughout the year allow them to share viewpoints with American students and the community.

**Dashew Center for International Students and Scholars**

The Dashew Center for International Students and Scholars assists students with questions about immigration, employment, government regulations, financial aid, academic and administrative procedures, cultural adjustment, and personal matters. The center seeks to improve student and community relationships; helps international students with language, housing, and personal concerns; and sponsors cultural, educational, and social programs. The center offers visa assistance for faculty members, researchers, and postdoctoral scholars.

**Lesbian Gay Bisexual Transgender Campus Resource Center**

The Lesbian Gay Bisexual Transgender Campus Resource Center in the Student Activities Center offers education, information, and advocacy services for the UCLA community. The center offers support groups, educational workshops, training seminars, and social activities; and maintains a library of 4,000 books, periodicals, and films. The staff provides confidential assistance and support to students, faculty, and staff who feel they have experienced harassment or discrimination or who wish to connect to the campus LGBTQ community.

**Office of Ombuds Services**

The Office of Ombuds Services responds to issues and concerns from students, staff, faculty, and administrators. Acting impartially, ombudspersons may investigate unresolved conflicts or facilitate the resolution of problems for which there are no established guidelines; and may also, where possible and when requested, assist in resolving an issue through mediation (including sexual harassment cases). The office is located in the Strathmore Building.

**Parking and Commuter Services**

Parking permits, ridesharing, and other commuting alternatives and services are offered through UCLA Transportation.

**Commuter Services**

Commuter programs offer information to help students get to and from campus without driving a car. These programs also help students use the extensive Los Angeles-area public transit network.

Students can use a trip planning tool to determine the best route to campus, or find a carpool or vanpool nearby. Nearly 150 vanpools commute to UCLA from 80 Southern California communities, with full- and part-time riding opportunities. The Bruin Commuter Club offers special benefits and incentives to eligible UCLA students who ride public transit, a UCLA vanpool, or a carpool.

Bruin Bike Share makes public bicycles available to students on a short-term basis for use on and around campus and
Westwood Village. Students may also rent a car by the hour through Zipcar.

Parking Permits
Parking at UCLA requires a permit. The Bruin ePermit is paperless, and uses a vehicle’s license plate as its parking permit.

Students must be registered for the current term to apply for parking, and permits are not guaranteed. Parking offers are prioritized according to parking availability and school. Within each category, carpools have priority, and carpool permits are offered at a discounted rate. All carpool members must qualify under the carpool parking requirements. Students must reapply for parking each term.

Students living within ZIP code 90024 pay the residence hall parking rate. Students living in campus residence halls (excluding Regents Scholars) who have off-campus jobs, and commuter students who have extenuating circumstances, must complete an exemption application and supply supporting documents.

Effective winter quarter 2019, disabled students apply for parking in person at the UCLA Transportation lobby. This applies to students with permanent and short-term disabilities who have a DMV-issued disabled person placard or license plate.

Post Offices
Campus mail is handled by UCLA Mail, Document, and Distribution Services (MDDS), which offers full-service document processing and delivery for the campus community. ASUCLA operates a U.S. Postal Service express post office on A Level in Ackerman Union. MDDS operates a U.S. Postal Service contract post office in Wilshire Center off campus.

Residential Services
UCLA Housing is the best guide for finding the right kind of accommodation for different lifestyles and budgets. It includes detailed information about the different residence options, dining plans, support and extracurricular programs, and an online housing application.

On-Campus Housing
Many students, especially those in their first year, choose to live on campus. Besides the convenience, campus living is a good way to meet other people and to find out about social and academic activities. Four residence halls, four deluxe residence halls, two residential suites, and five residential plazas accommodate over 11,000 undergraduate students. All on-campus housing buildings are coed and within walking distance to classrooms. New freshman and transfer students who are admitted for fall quarter and apply on time are guaranteed housing. Graduate student housing is also available.

Rooms in undergraduate residences are furnished and usually shared between two or three students. Meals are served daily at residential restaurants, and students may choose from a variety of meal plans.

Students apply for on-campus housing, by posted deadlines, at the My Housing website. Students who apply for winter or spring quarter are assigned housing on a space-available basis in the order their applications are received.

Per-person rates for the academic year vary depending on housing type. See housing rates for current rates.

The Office of Residential Life is responsible for student conduct in residence halls and suites. Its professional and student staff members can counsel students on residential problems.

Sponsored by Residential Life, Living Learning Communities offers students with similar interests an opportunity to live together and participate in programs according to their academic, social, and personal needs and interests. Students can live in communities as varied as gender, sexuality, and society; sustainable living; global health; and various cultures.

Off-Campus Housing
Within walking distance of campus, UCLA maintains nine undergraduate off-campus apartment buildings for full-time, single transfer, and upper-division students. Apartments vary from singles to three-bedroom units, with bedrooms usually shared by two or three students. Not all types of apartment spaces are available to entering students. Virtual tours are available online.

Married, single-parent, and single graduate students are accommodated in six off-campus apartments; some are located within walking distance of campus, others about five miles from campus and served by a campus shuttle. Apartments include furnished and unfurnished studio and one-, two-, and three-bedroom units. Assignment to several apartments is by wait list; students must be accepted to UCLA to apply.

Many of the fraternities and sororities at UCLA own chapter houses. Complete information and membership requirements are published by Fraternity and Sorority Life.

Student Legal Services
Through Student Legal Services in Murphy Hall, currently registered students with legal problems or questions about their legal rights can get assistance from attorneys or law students under direct supervision of attorneys. They help students resolve legal problems, including those related to
landlord/tenant relations; accident and injury problems; criminal matters; domestic violence and harassment; divorces and other family law matters; automobile purchase, repair, and insurance problems; health care, credit, and financial aid issues; consumer problems; and UCLA-related issues. Assistance is available only by appointment.

Veterans Affairs Services
The veterans affairs benefits officer provides assistance with benefit information, waivers, enrollment certification, and coordinating transitions to and from active duty. For more information, see Registrar’s veteran services.

Part of the Bruin Resource Center, the Veterans Resource Office (VRO) helps veterans navigate UCLA and furnishes mentoring, guidance on educational benefits, and tools to succeed academically and personally through a variety of programs and services.

Student Activities
The opportunities to participate in extracurricular activities at UCLA are virtually unlimited, and are a good way for students to expand their horizons beyond classroom learning.

Clubs and Organizations
Joining a club or organization is a great way to meet other students with shared interests and to get involved in campus life.

Community Programs Office
The UCLA Community Programs Office (CPO) houses student-initiated community service projects that offer educational, legal, social, medical, and academic services to underserved communities in Southern California; seven student-initiated outreach projects that seek to improve the number of students from local underserved areas who attend colleges and universities; and five student-initiated retention projects that seek to ensure that all students who enter UCLA actually graduate. CPO programs foster a multicultural and ethnically diverse environment at UCLA.

Office of Fraternity and Sorority Life
Fraternities and sororities have been at UCLA since the early 1920s. Today UCLA is home to more than 70 national and local Greek-letter organizations that make up one of the largest Greek systems on the West Coast.

The Office of Fraternity and Sorority Life (FSL) interprets UCLA policies, procedures, and regulations, and acts as a liaison between established Greek organizations and UCLA. It coordinates Greek-letter social organizations that participate in programs such as the Greek Leadership Conference, Greeks against Sexual Assault (GASA), Greek Week, new member forums, dating expectations programs, intramural tournaments, and UCLA-sponsored programs.

Office of Residential Life
The Office of Residential Life hosts True Bruin Welcome and the Common Book experience, and brings a variety of programs to the Hill to build a sense of community and offer social enrichment.

Student Organizations, Leadership, and Engagement
UCLA has over 1,000 different organizations recognized by Student Organizations, Leadership, and Engagement (SOLE)—more than are found on almost any other university campus in the country. Organizations registered with SOLE include political, recreational, community service, cultural, academic, religious, and residential clubs. It only takes three people to start a new club if their interests are not already represented. SOLE also handles complaints of misconduct against officially recognized student organizations.

Performing Arts
Concerts, dance recitals, and theater productions are all part of exceptional programs offered by the Ethnomusicology; Film, Television, and Digital Media; Music; Theater; and World Arts and Cultures/Dance departments, and by the Center for the Art of Performance at UCLA.

Center for the Art of Performance
Since 1937, the Center for the Art of Performance (CAP) at UCLA has been a premier West Coast showcase for world-class performing artists and ensembles as well as innovative new work in dance, music, theater, and performance art. The center presents more than 200 public concerts and events each year, often sponsoring debut performances of new works by major artists. Through the center, the campus hosts a varied and active performance program, ranging from regular concerts by the Los Angeles Chamber Orchestra to events with The Symphonic Body UCLA, Contra-Tiempo, Peter Sellars, Cassandra Wilson, Anoushka Shankar, Afro Latin Jazz Orchestra, Randy Newman, Bojofondo, Buddy Guy, and Young Jean Lee’s Theater Company. Subject to availability, discount tickets are offered to students, faculty, and staff.

Department Events
The Ethnomusicology Department offers students the opportunity to perform in various world music and jazz
ensembles that give concerts listed in the department schedule of events.

The Film, Television, and Digital Media Department features student-directed films and television programs throughout the year, and the Theater Department presents a series of major productions to the general public. The School of Theater, Film, and Television annual Design Showcase West features rising entertainment designers; its week-long Film Festival celebrates film, digital media, animation, screenwriting, and acting that spans performance art to the classics.

The Music Department features performances by ensembles ranging from music theater to opera. Its Gluck Outreach Program and Music Partnership Program reach out to the community through free performances throughout Los Angeles and Southern California.

The World Arts and Cultures/Dance Department presents events and concerts involving department faculty members, guest artists, and students. Student performances include MFA concerts, an undergraduate and graduate student-produced concert, and the Senior Concert/Colloquium. Students also perform in more informal programs, such as the end-of-term student works festival or Pau Hana, that feature many world dance forms.

Recreation

To help students learn new skills, meet people with similar interests, relieve stress, and increase fitness, UCLA Recreation (UREC) oversees programs from intramural sports to outdoor adventures.

Intramural and Club Sports

The UCLA intramural sports program consists of team, dual, and individual sports competition in tournament or league play. Over 7,000 participants compete throughout the year in various sports activities ranging from basketball to water polo. UCLA students and recreation membership holders are eligible. Varying skill levels are offered in almost all activities, and the emphasis is on friendly competition.

Club sports offer students the chance to organize, coach, or participate in sports that fall beyond the scope of intramurals but are not offered at the varsity level. Coed teams exist in archery, badminton, boxing, Brazilian jiu-jitsu, climbing, cycling, dragon boat, equestrian, fencing, figure skating, golf, gymnastics, judo, kendo, powerlifting, quidditch, running, sailing, ski and snowboard, squash, swim, table tennis, taekwondo, tennis, track and field, triathlon, water skiing, wrestling, and wushu. Separate men’s and women’s teams exist in basketball, lacrosse, rugby, soccer, ultimate, volleyball, and water polo. There are also men’s teams in baseball, ice hockey, and rowing; and women’s teams in beach volleyball, field hockey, and softball.

Outdoor Adventures

Outdoor adventures offer students the chance to get away and enjoy the wonders of local and distant mountains and waterways. Activities designed for beginning to experienced outdoors people include bike rides, challenge course, camping, rock climbing, scuba diving, windsurfing, canoeing, kayaking, and hiking.

Class Programs

Noncredit instructional classes in arts, dance, fitness sports, golf, kayaking, martial arts, outdoor adventures, rock wall, rowing, sailing, standup paddling, surfing, swimming, tennis, water aerobics, windsurfing, yoga, and a variety of group fitness programs are offered for beginning and intermediate levels. Private lessons in arts, dance, martial arts, sports, aquatics, and other activities are also available. Fitness is offered either as a recreation class or on a drop-in basis.

Facilities

For registered students who prefer independent recreation and exercise, UREC offers access to many facilities. The John R. Wooden Recreation and Sports Center has multiple gymnasias; basketball, volleyball, and badminton courts; handball/racquetball/squash courts; a weight training facility, rock climbing wall, exercise/dance and martial arts studios; and a games lounge. The Bruin Fitness Center, located on the Hill, and Kinross Recreation Center, located in Westwood, offer closer-to-home exercise options for undergraduate and graduate students respectively. Sunset Canyon Recreation Center offers activities in an outdoor park setting that features a 50-meter swimming pool, 25-yard family pool, picnic/barbecue areas, play fields, outdoor amphitheater, six lighted tennis courts, sand volleyball court, two multipurpose sports courts, and various meeting rooms and lounges, as well as a challenge course. The UCLA Marina Aquatic Center offers sailing, windsurfing, kayaking, rowing, surfing, and other activities. Students also have the use of Pauley Pavilion, Drake Stadium, Hitch Basketball Courts, Sycamore Tennis Courts, Los Angeles Tennis Center, intramural field, Student Activities Center, and Kaufman Hall for recreational sports and activities.

Sports and Athletics

UCLA Athletics plays a major role in the UCLA mission to furnish a well-rounded education both in and out of the classroom. UCLA continues to live up to its reputation as a national leader in intercollegiate sports. The first school to
win 100 National Collegiate Athletic Association (NCAA) championships, UCLA currently ranks second in the U.S. with 118. In 2018-19, UCLA men’s and women’s athletic programs placed 6th in the Directors Cup national all-around excellence survey; men placed in the top 10 three times and women six times over the nine years in the Capital One Cup. In the 23-year history of the USA Today survey, the men’s program placed first 11 times; the women’s program placed first five times in the final nine years. UCLA was the first university in the country to win five NCAA men’s and women’s championships in a single year (1981-82). UCLA competes as the Bruins, in colors of blue and gold.

UCLA also has produced a record number of professional athletes such as Kareem Abdul-Jabbar, Troy Aikman, Arthur Ashe, Eric Karros, Reggie Miller, Corey Pavin, Jackie Robinson, and Natalie Williams; and Olympians such as medalists Gail Devers, Ann Meyers Drysdale, Lisa Fernandez, Jackie Joyner-Kersee, Karch Kiraly, Dot Richardson, Peter Vidmar, and Natasha Watley.

Athletic Facilities
The major indoor arena at UCLA is the famed Pauley Pavilion, which seats approximately 13,800 for UCLA basketball, volleyball, and gymnastics events. It was the site of the 1984 Summer Olympics gymnastics competition. The adjacent Drake Stadium is the site of UCLA soccer and track and field competitions, and of many outdoor events including the 1991 U.S. Olympic Festival. The Spieker Aquatics Center is home to the UCLA water polo, swimming, and diving teams. The Los Angeles Tennis Center, a 5,800-seat outdoor tennis stadium and clubhouse, was the site of the 1984 Olympic tennis competition. Easton Softball Stadium, which seats 1,300, is the home of the women’s softball team. The Morgan Intercollegiate Athletics Center houses the UCLA Athletic Hall of Fame and the actual personal den of Coach John Wooden. Off-campus facilities include Jackie Robinson Stadium for varsity baseball and the renowned Rose Bowl in Pasadena, home of the UCLA football team.

Intercollegiate Sports
UCLA Athletics is a member of the Pac-12 Conference.

Men’s teams have won an overall total of 75 NCAA titles—second highest in the nation—including 19 in volleyball, 16 in tennis, 11 in basketball, 11 in water polo, eight in track and field, four in soccer, two each in golf and gymnastics, and one each in baseball and swimming. Students can participate on the varsity level in baseball, basketball, cross country, football, golf, soccer, tennis, track and field, volleyball, and water polo.

Women’s teams have won an overall total of 43 NCAA titles—second highest in the nation—including 12 in softball, seven in water polo, seven in gymnastics, five in track and field, four in volleyball, three in golf, two each in beach volleyball and tennis, and one in soccer. Students can participate on the varsity level in basketball, beach volleyball, cross country, golf, gymnastics, rowing, soccer, softball, swimming and diving, tennis, track and field, volleyball, and water polo.

UCLA Alumni Association
Through 85 years of serving the UCLA community, the UCLA Alumni Association has more than 92,000 members, making it one of the largest alumni groups in the nation. Whether a person is a recent graduate, a pioneer Bruin, or somewhere in between, membership in the Alumni Association is the best way to stay connected to UCLA and its growing excellence.

Membership dues enable the Alumni Association to serve as an advocate on campus and to play the vital role of guardian of the value of every UCLA degree. Dues also support student programs such as Beat SC Bonfire and Rally, I Love UCLA Week, Locks of Love, Dinners for 12 Strangers, Spring Sing, Alumni Day, senior events, class reunions, career events, and the scholarship program.

The association offers many benefits and services, including alumni career and travel services. Members make friends, pursue lifelong learning, save money, and make a difference. UCLA graduates, Bruin parents, and friends of UCLA are invited to take advantage of all the association has to offer. Offices are in the James West Alumni Center.
Undergraduate Study

Undergraduate students at UCLA can earn bachelor degrees in 140 majors in the College of Letters and Science and seven professional schools: Graduate School of Education and Information Studies; Henry Samueli School of Engineering and Applied Science; Herb Alpert School of Music; Meyer and Renee Luskin School of Public Affairs; School of the Arts and Architecture; School of Nursing; and School of Theater, Film, and Television.

In addition to its record of academic excellence, UCLA offers undergraduate students an extraordinary opportunity to participate in undergraduate research, internships and community service, a variety of undergraduate programs and seminars, and prepares the next generation for leadership roles after graduation.

Shared Governance

Undergraduate degree programs, courses, and requirements are governed by the Undergraduate Council; College and school faculty executive committees; and committees for general education, Writing II, and diversity requirements.

Undergraduate Council

The Undergraduate Council is a standing committee of the UCLA Academic Senate. The council is responsible for the establishment of policy and standards for undergraduate education at UCLA, recommends to the Legislative Assembly programs that lead to new degrees, and delegates authority to College and school faculty executive committees.

Undergraduate Education Division

Led by the senior dean of the College and vice provost for undergraduate education of the university, the division is a campuswide advocate for undergraduate education. Among its goals are to enrich the quality of the academic experience of undergraduate students, help students find meaningful pathways to timely degree completion, and prepare students for life after college. The division oversees the general education curriculum and offers programs including Fiat Lux seminars, cluster courses, and New Student and Transition Programs; as well as the Academic Advancement Program, College Honors programs, Center for Undergraduate Research, and Center for Community Learning.

Undergraduate Admission

Undergraduate Admission
1147 Murphy Hall
310-825-3101

Prospective undergraduate students should give careful thought to adequate preparation in reading, writing, mathematics, laboratory sciences, languages, visual and performing arts, and other subject areas related to a degree objective or major. To be competitive, UCLA applicants need to present an academic profile much stronger than that represented by the minimum UC admission requirements.

Undergraduate Admission invites prospective students to visit UCLA for individual or group tours of the campus. Reservations are required.

Application for Admission

Prospective students apply for admission to UCLA for the fall quarter by completing the UC Application for Admission and Scholarships.

One application is used for all nine UC campuses with undergraduate programs. Students apply to one UC campus with a nonrefundable application fee; an additional fee is charged for each additional campus. Students may only apply to one College or school at UCLA.

When to Apply

All majors and programs in the College of Letters and Science; Graduate School of Education and Information...
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Studies; Henry Samueli School of Engineering and Applied Science; Herb Alpert School of Music; Meyer and Renee Luskin School of Public Affairs; School of the Arts and Architecture; School of Nursing; and School of Theater, Film, and Television are open for fall quarter. The application filing period is November 1 through 30 of the prior year. See applying for UCLA admission for up-to-date information on application procedures.

Admission Notification

The UC Application Center sends e-mail notices to acknowledge receipt of applications. Subsequently, UCLA Undergraduate Admission notifies students of the admission decision. Fall-quarter freshman applicants are notified in late March; transfer applicants are notified in late April.

Students who are offered admission are asked to submit a Statement of Intent to Register and a Statement of Legal Residence. A nonrefundable deposit, also required at this time, is applied to the student services fee as long as students register in the term to which they are admitted.

Entrance Requirements

Entrance requirements established by the University of California follow the guidelines set forth in the California Master Plan for Higher Education, which requires that the top 12.5 percent of the state’s high school graduates be eligible for admission to the University of California. Requirements are designed to ensure that all eligible students are adequately prepared for university-level work.

Fulfilling the minimum admission requirements does not assure admission to UCLA. Admission is based on demonstrated high scholarship in preparatory work going well beyond the minimum eligibility requirements. Honors-level high school, and Advanced Placement, International Baccalaureate, and transferable college courses are good preparation regardless of the desired major. UCLA offers admission to those students with the best overall academic preparation, viewed in the context of applicants’ academic and personal circumstances, extracurricular and volunteer experiences, and the overall strength of the UCLA applicant pool. For details, see undergraduate admission.

Admission as a Freshman

Students are considered freshman applicants if they have not enrolled in a regular session of any college-level institution since graduation from high school. Students who attend summer session immediately following high school graduation are still considered freshman applicants.

Minimum Admission Requirements

To be considered for admission as a freshman, students must meet the subject, grade-point average (GPA), and examination requirements.

Subject Requirement

The subject requirement, sometimes called A to G requirements, is a sequence of high school academic courses required for admission to the University of California. Each course must be completed with a grade of C or better. The requirement consists of 15 year-long courses, with 11 completed prior to the beginning of twelfth grade. These are the minimum requirements; students should exceed these requirements whenever possible.

A. History/Social Science. Two years of history/social science, including one year of world history, cultures, and historical geography; and one year of U.S. history, or one-half year of U.S. history and one-half year of civics or American government

B. English. Four years of college-preparatory English composition and literature, integrating extensive reading of classic and modern literature and content-rich works of nonfiction; frequent writing, from brainstorming to final paper; and practice listening and speaking with different audiences. No more than one year of ESL-type courses can be used to meet this requirement

C. Mathematics. Three years of college-preparatory mathematics, including or integrating the topics covered in elementary and advanced algebra and two- and three-dimensional geometry. Mathematics courses completed in the seventh and/or eighth grades and approved integrated mathematics courses may be used to meet part or all of this requirement

D. Laboratory Science. Two years of laboratory science that supply fundamental knowledge in two of the following: biology, chemistry, and physics; or one year of either biology, chemistry, or physics, and one year of interdisciplinary science, integrated science, or Earth and space sciences

E. Language Other than English. Two years of the same language—or coursework equivalent to the second level of high school instruction—including emphasis on speaking and understanding, development of awareness and understanding of the cultural context around the target language, practice with reading and composition, and instruction on grammar and vocabulary. Language courses taken in seventh and/or eighth grade may be used to meet part or all of this requirement. American Sign Language and classical languages such as Greek and Latin are acceptable
F. Visual and Performing Arts. One year-long visual and performing arts course selected from dance, drama/theater, music, or visual art

G. College Preparatory Electives. One year (two semesters), in addition to those required in A through F, or one year (two semesters) approved in the elective category

Subject Requirement Summary

A. History/Social Science 2 years
B. English 4 years
C. Mathematics 3 years
D. Laboratory Science 2 years
E. Language Other than English 2 years
F. Visual and Performing Arts 1 year
G. College Preparatory Electives 1 year

Grade-Point Average Requirement

California residents are eligible for admission to the University of California with a 3.0 grade-point average; nonresidents are eligible with a 3.4 GPA. Minimum eligibility does not guarantee admission to UCLA.

Examination Requirement

All freshman applicants must submit scores from either the ACT with Writing test, the SAT Reasoning Test (last administered in January 2016), or the SAT with Essay test. Only the highest scores from a single sitting are used for admission consideration.

The tests, which are part of the review process, should be taken by December of the senior year. Students should request that test results be sent directly to UCLA.

Admission Selection

UCLA selects students using a carefully designed holistic evaluation process that takes into account an applicant’s achievements, both academic and nonacademic, in the context of the opportunities available. Among other factors, holistic evaluation specifically considers academic grade-point average; performance on standardized tests; the quality, quantity, and level of coursework taken; sustained participation in activities that develop academic and intellectual abilities; leadership and initiative; employment and personal responsibilities; and overcoming life challenges related to personal or family situations.

Because admission requirements and selection criteria may change, freshman applicants should see freshman admission process for the most complete and up-to-date information.

Admission as a Transfer Student

Students are considered transfer applicants if they have enrolled in a regular fall, winter, or spring session at another college or university or in college-level extension courses. (This does not include attending a summer session immediately following high school graduation.) Students may not disregard their college record and apply for admission as a freshman.

In accordance with the California Master Plan for Higher Education, first preference is given to California community college applicants. Applicants transferring from other UC campuses are next in priority, followed by applicants transferring from other colleges and universities. Each applicant receives a comprehensive evaluation, integrating all available information. Students attaining senior standing are generally not admitted.

Academic criteria are as follows: junior-level standing (60 semester/90 quarter transferable units completed) by the end of the spring term before transfer, grade-point average in transferable courses, significant preparation for the major, completion of the English composition and mathematics requirements, and progress toward completion of the Intersegmental General Education Transfer Curriculum (IGETC), another UC campus general education requirements, or UCLA general education requirements.

Because admission requirements and selection criteria may change, transfer applicants should see transfer admission for the most complete and up-to-date information.

Intercampus Transfers

Undergraduate students registered in a regular session at any UC campus (or those previously registered who have not since registered at any other school) may apply for transfer to another campus. Submit the UC Application for Transfer Admission and Scholarships with the required application fees. The filing periods and admission requirements are the same as those for new applicants. Students who have attended another UC campus and wish to be considered for admission to UCLA must have been in good standing when they left that campus. Intercampus transfers are not automatic; students must compete with all other applicants and must meet UCLA transfer admission requirements.

Transfer Credit and Credit by Examination

UCLA awards unit credit to transfer students for certain courses completed at other regionally accredited colleges and universities. To be accepted for credit, the courses must be comparable to those offered at UCLA, as determined by Undergraduate Admission. All courses that meet the criteria are used in determining eligibility for admission.
To convert semester units into quarter units, multiply the semester units by 1.5. For example, 12 semester units x 1.5 = 18 quarter units.

College credit for examinations given by national testing services is generally not allowed, except for the AP Examinations given by the College Board and the International Baccalaureate higher-level examinations. See transfer credit for more information.

International Applicants

To be considered for admission to the University of California, international students must have completed secondary school with a superior average in academic subjects and have earned a certificate of completion that would enable them to be admitted to a university in the home country.

The application for admission, copies of official certificates, and detailed records of all secondary schools attended should be submitted as early as possible after the filing period opens. This allows time for the necessary correspondence and, if students are admitted, to obtain passport visas.

English Language Proficiency

Students whose native language is not English must have sufficient command of English to benefit from instruction at UCLA. First-year undergraduate students who have not otherwise satisfied the Entry-Level Writing requirement and who have not taken the Analytical Writing Placement Examination (AWPE) by the time they enter UCLA must take the AWPE in their first term at UCLA. Results of the AWPE are reviewed to determine whether students should take English as a second language (ESL) courses to fulfill the Entry-Level Writing requirement. If held for the ESL requirement, students must complete the requirement by taking the designated credit-bearing courses.

In addition, students are advised to take the Test of English as a Foreign Language (TOEFL) as a preliminary means of testing their ability. Test results should be sent directly to UCLA Undergraduate Admission.

Second Bachelor’s Degree

By policy, second bachelor’s degrees are not generally granted.

Registration

Registrar’s Office
1113 Murphy Hall
310-825-1091, option 6

Registration consists of paying fees and enrolling in classes.

1. Registration fees and other UCLA charges are due the 20th of each month. BruinBill accounts can be viewed through MyUCLA.

2. Enrollment in classes is completed through MyUCLA. Students must complete both processes by the established deadlines to be officially registered for the term.

Paying Fees

Details on fee payment, enrollment procedures, and deadlines are on the Registrar’s website.

Electronic Billing

BruinBill accounts are administered electronically (e-bill) through MyUCLA. Financial activity is displayed for the current term, as well as account activity for the last 24 months. Students can pay their BruinBill account electronically using an electronic check with no fee; or with American Express, Discover, MasterCard, and VISA credit cards with a fee.

Annual Undergraduate Fees

Although the exact cost of attending UCLA varies, there are some fees that all UCLA students must pay. UCLA does not charge on a per-unit basis for undergraduate students in regular academic terms.
Each entering and readmitted student is required to submit a Statement of Legal Residence. Students classified as non-residents of California must pay nonresident supplemental tuition in addition to registration fees. Legal residents of California are not required to pay nonresident supplemental tuition. For a definition of residence and nonresidence, see Appendix A.

The Student Services Fee covers student expenses such as counseling, facilities, registration, graduation, and health services. The fee is charged whether or not students make use of these services.

**Instructional Enhancement Initiative Fee**

The instructional enhancement initiative (IEI) fee supports technology in undergraduate education. The fee helps support course websites and online tools, computer laboratories, and software.

**Course Materials and Services Fees**

The College of Letters and Science and each school are authorized to assess course materials and services fees. Some of these fees are assessed based on actual enrollment at the end of the fourth week of classes. Students are responsible for ensuring that all study list errors and omissions are corrected prior to the end of the second week. All students in a course with an approved course materials and services fee are assessed the fee, regardless of major. The fee is nonrefundable. Students who are approved to add a course after the third week of instruction are required to pay the course materials and services fee for the entire term.

Fee amounts are available on the Registrar’s course fees web page.

**Miscellaneous Fees**

Miscellaneous fees include charges for late registration fees payment. Late fees also apply if students file their study list late or do not pay BruinBill balances on time. Fees are charged if any check is returned by a bank for any reason. Charges are assessed for most petitions and other special requests. Study list, document and service, transcript-related, and degree and diploma fees are published on the Registrar’s website.

**Student Health Insurance Fee**

All undergraduate students are automatically assessed for and enrolled in the University of California Student Health Insurance Plan (UCSHIP) as a condition of registration at UCLA. Continued enrollment in a qualified health insurance plan is mandatory during all registered terms. UCSHIP covers medical, vision, dental, and behavioral health services.

The UCSHIP fee is billed each term along with other UCLA fees. UCSHIP fulfills all requirements mandated for a qualified health insurance plan as defined by the University of California. The Ashe Student Health and Wellness Center is the primary health-care provider for UCSHIP, and where all nonemergency medical care is initiated.

Nonregistered students (those who withdraw, or are on approved leave or planned academic leave) may have access to UCSHIP services under certain conditions. Contact the Ashe Center to learn more.

**UCSHIP Waiver**

Students may waive UCSHIP if they maintain active enrollment in a qualified health insurance plan that meets all established requirements, apply for a waiver within established deadlines each term, and correctly complete the online waiver form. Students are responsible for providing complete and accurate information. Third-party individuals may not waive UCSHIP for a student. Waivers must be submitted before the term fees payment deadline. Deadlines are strictly enforced, and no refunds are issued after the deadline. For more information, see the Ashe insurance web page.

**Fee Refunds**

Students who formally withdraw from UCLA may receive partial refunds of fees. For more information, see Withdrawal in the Academic Policies chapter. Consult the Registrar’s refunds web page for policy details and specific refund deadlines for each term.

**Fee Waiver Requests**

Late registration, processing, and penalty fees are waivable on request in writing to the office assessing the fees only if they were incurred through the fault of UCLA, or because a student suffered sudden and debilitating injury or accident.

**Reduced Fee Programs**

UCLA recognizes the need for part-time study in special circumstances. Undergraduate resident students—when properly approved by the dean of their College/school for enrollment in 10 or fewer units—may be eligible for a one-half reduction in tuition. The reduction is based on total units enrolled as of Friday of the third week of classes. Students should contact their College or school for eligibility requirements. Students must file a Fee Reduction Request with the academic dean’s office by Friday of the second week.
Except for these qualified and approved part-time students, there is no reduction in tuition, or in student services; Ackerman Student Union; Wooden Center; student programs, activities, and resources complex (SPARC); or Undergraduate Students Association fees.

Undergraduate nonresident students with College or school approval for enrollment in 10 units or fewer pay only half the nonresident supplemental tuition fee. Students must file a Fee Reduction Request with the College or school office by Friday of the second week of classes for the applicable term.

Full-time UC employees may apply for a reduction of tuition and the student services fee at their campus human resources office. Students who use the part-time fee reduction may not also use the UC employee reduction.

**Fees Notice**

All fees are subject to change without notice by the Regents. Current academic year fees and updated information is available on the Registrar’s fees web page.

**Class Enrollment**

New students should see an academic counselor before enrolling in classes (counseling is required in the Henry Samueli School of Engineering and Applied Science). Counselors help new students select courses and formulate a schedule tailored to their academic interests or degree objectives.

**New Student Orientation** takes new students through a step-by-step process designed to ensure that they enroll in an effective program.

**Enrollment**

Students enroll in classes through MyUCLA during assigned times—called enrollment appointments—when they are allowed to enroll. The Class Planner feature allows students to create class plans prior to enrollment, share plans with counselors, and quickly add classes during their enrollment appointment. Students use the Find a Class or Section feature to search the [Schedule of Classes](#) and add available classes to their class plan or study list.

MyUCLA is also used to view enrollment appointments; drop classes; change grade type and number of units; exchange classes; and view the study list, which includes information on class meeting times, final examinations, classmates, grades, textbooks, and class websites. For more information, see Registrar’s [study list](#) and [enrollment policies](#) web pages.

For classes that require written approval or specialized processing, students may enroll in person Monday through Friday from 9 a.m. to 4 p.m. at 1113 Murphy Hall.

**Study List**

A study list is the record of courses in which a student is enrolled for the term. At 11:59 p.m. on Friday of the second week of instruction the study list of enrolled courses becomes official, and all wait lists are eliminated. Students should verify their study list through MyUCLA after each enrollment transaction. Students are responsible for all courses and the grading basis as listed on MyUCLA, and cannot receive credit for courses not listed.

After Friday of the second week, most changes to the official study list can be made with a fee through MyUCLA. Some changes require an Enrollment Petition along with approval signatures.

See the Registrar’s [study list](#) web page for deadlines and complete instructions.

Errors or omissions should be corrected before the College or school deadlines for changes by petition. Unapproved withdrawal from or neglect of a course entered on the study list results in a failing grade.

**Wait List**

Some departments establish wait lists for classes that are full. If a student in the class drops, the seat is filled by a student on the wait list. Students can check enrollment status through MyUCLA. Position on a wait list does not indicate enrollment. Students on a wait list should not assume they will be added to a class.

Wait lists are maintained through Friday of the second week of instruction unless a department deletes them earlier.
Concurrent Enrollment

Concurrent enrollment—defined as taking courses during regular sessions for credit at UCLA and, at the same time, at a non-UC institution, including UCLA Extension—is not permitted except in extraordinary circumstances; and no credit is given for such courses unless the approval of the UCLA College or school has been obtained by petition prior to enrollment.

Intersegmental Cross-Enrollment Program

Undergraduate students enrolled in any campus of the California community colleges, the California State University, or the University of California may enroll without formal admission in a maximum of one course per academic term at a campus of either of the other systems at the discretion of the appropriate campus authorities on both campuses on a space-available basis per the California Education Code sections 66755 and 66756 (amended by California Senate Bill 361 passed in 1999). Enrollment in pre-college courses is excluded.

UCLA students qualify for intersegmental cross-enrollment if they meet all the following requirements:

1. Complete at least one term at UCLA as a matriculated student
2. Enroll for a minimum of 6 units for the current term
3. Earn a grade-point average of 2.0 (C) for work completed
4. Pay appropriate tuition and fees at UCLA for the current term
5. Complete appropriate academic preparation as determined by the host campus
6. Have California resident status

Obtain a concurrent enrollment application from the College or school. An administration fee is charged for each academic term such enrollment is requested.

Intercampus Visitor Program

Undergraduate students enrolled at one campus of the University of California may have the opportunity to attend another UC campus for one quarter or semester on the Intercampus Visitor Program. Students should observe the application deadlines. Applications are reviewed by a student’s College or school.

School of the Arts and Architecture
Office of Student Services, 2200 Broad Art Center

Graduate School of Education and Information Studies
Office of Student Services, 1002 Moore Hall

Henry Samueli School of Engineering and Applied Science
Office of Academic and Student Affairs, 6246 Boelter Hall

College of Letters and Science
College Academic Counseling, A316 Murphy Hall

Herb Alpert School of Music
Office of Student Affairs, 1642 Schoenberg Music Building

School of Nursing
Student Affairs Office, 2-147 Factor Building

Meyer and Renee Luskin School of Public Affairs
Student Services Office, 3250 Public Affairs Building

School of Theater, Film, and Television
Student Services Office, 103 East Melnitz Building

Simultaneous UC Enrollment

Undergraduate students may enroll simultaneously in courses offered by another UC campus. Eligible students must be registered (fees paid), in good standing, and enrolled in at least 12 units at UCLA. Students may simultaneously enroll in no more than one UC host-campus course not to exceed 6 units. Before attending the host campus, both campuses must give approval. Approval to enroll simultaneously on another UC campus does not guarantee credit toward specific degree or general education requirements. Application of host-campus courses to UCLA graduation requirements is determined by the College or school. Details are on the application form. Obtain applications and directions for submitting forms from the following offices:

School of the Arts and Architecture
Office of Student Services, 2200 Broad Art Center

Graduate School of Education and Information Studies
Office of Student Services, 1002 Moore Hall

Henry Samueli School of Engineering and Applied Science
Office of Academic and Student Affairs, 6246 Boelter Hall

College of Letters and Science
Academic Advancement Program, 1209 Campbell Hall
College Academic Counseling, A316 Murphy Hall
College Honors Programs, A311 Murphy Hall
Student Athletics, Morgan Center

Herb Alpert School of Music
Office of Student Affairs, 1642 Schoenberg Music Building

School of Nursing
Student Affairs Office, 2-147 Factor Building

Meyer and Renee Luskin School of Public Affairs
Student Services Office, 3250 Public Affairs Building

School of Theater, Film, and Television
Student Services Office, 103 East Melnitz Building

The application is also available on the Registrar’s simultaneous enrollment web page.
Immunization Requirements

UCLA requires that all incoming students be vaccinated against or show immunity to multiple infectious diseases consistent with guidelines of the American College Health Association, California Department of Public Health, and U.S. Centers for Disease Control and Prevention (CDC). These requirements help protect the health of students and the entire campus community. Students submit their immunization history to the Ashe secure patient portal. See immunization requirements for more information.

Financial Support

Financial Aid and Scholarships
A129J Murphy Hall
310-206-0400

The priority deadline for filing all undergraduate financial aid applications for the regular academic year is March 2. Applications received after the deadline are considered late, and limited aid is offered.

The Financial Aid Handbook is available on the Financial Aid and Scholarships forms and publications web page.

Application for Financial Aid

Students do not need to come from low-income families to qualify for financial aid. However, those who apply for need-based aid—including grants, loans, work study, and some scholarships—must demonstrate financial need, which is defined as the difference between the cost of attending UCLA and the amount that they and their families should be able to contribute.

Financial aid is not available for international students.

Students attending UCLA summer sessions, summer travel programs, summer institutes, or UC cross-campus summer programs and in need of financial aid must submit a summer financial aid application in addition to the Free Application for Federal Student Aid (FAFSA). Summer applications are available on MyUCLA (in the Finances and Jobs section).

To qualify for aid, students must also comply with Financial Aid standards for satisfactory academic progress as defined in Appendix A.

Free Application for Federal Student Aid

To evaluate financial need, all citizen and permanent resident students who apply for aid must provide financial information on the Free Application for Federal Student Aid (FAFSA). If students are financially independent according to the federal financial aid guidelines, their own financial circumstances are analyzed rather than those of their parents. UCLA expects that students and their families bear as much of the cost of a student’s education as their circumstances permit.

The information reported on the FAFSA is used to apply for all federally funded programs, funds administered by UCLA, and the Cal Grant program administered by the California Student Aid Commission. Loans that are not need based are also available to all students who complete the FAFSA. Students should complete the FAFSA online by March 2. To ensure that UCLA receives FAFSA information, students should enter federal school code 001315 in the appropriate search field.

California Dream Act Application

Students who are not citizens or permanent residents but who are eligible for Assembly Bill 540 nonresident fee waivers may be eligible to qualify for scholarships, UCLA grant aid, and additional state aid if they complete a California Dream Act application. The priority filing deadline for the Dream application is March 2.

Prospective Student Scholarships

In addition to using the FAFSA and Dream Act application to apply for aid, prospective students who apply to UCLA with the UC Application for Admission and Scholarships may use the admission application to apply for undergraduate scholarships. Once admitted, students may fill out the Financial
Aid and Scholarships undergraduate scholarship application to broaden their scholarship opportunities.

Continuing Student Scholarships

Continuing students can access and submit the annual Financial Aid and Scholarships undergraduate scholarship application. Students are able to submit the application year round, although early submission is advisable. The Scholarship Resource Center can also help with a thorough search for outside scholarships.

Types of Financial Aid

The four basic types of aid are scholarships, grants, loans, and work-study employment. The Financial Aid and Scholarships office usually offers a combination of different award types to most applicants.

Aid can be merit based—awarded on the basis of standards such as academic achievement; or need based—awarded on the basis of financial need as determined by the financial aid application. Scholarships managed by the Financial Aid and Scholarships office are based on merit and need. Grants, loans, and work study are generally need based.

Scholarships

The undergraduate scholarship program at UCLA rewards academic excellence and assists with the expenses of an undergraduate education.

Scholarship awards range from $100 to $10,000 per year, and require the student to submit a new scholarship application on an annual basis. Financial need is not required for most scholarships at UCLA.

Entering students apply for scholarships on the UC Application for Admission and Scholarships. Once admitted to UCLA, new students have the opportunity to add additional information to their scholarship profile, to allow various departments across campus to consider them for other scholarships that may open throughout the academic year. Continuing students are encouraged to submit the scholarship application as early as May 1 each year. However, applications are accepted year-round.

In addition to applying for UCLA scholarships, students are encouraged to apply for outside scholarship funding through search engines such as UCLA Scholarship Resource Center, Cappex, Chegg, College Board, Fastweb, NICHE, Peterson’s, SallieMae, Scholarship Monkey, and UNIGO.

Regents Scholarships

One of the highest honors conferred on an undergraduate student is the Regents Scholarship, which is awarded for four years to students entering from high school and for two years to entering juniors. A UCLA faculty committee selects Regents Scholars on the basis of exceptional academic achievement and promise. Scholars receive a yearly honorarium if they have no financial need. Scholars who establish financial need by filing the FAFSA or California Dream Act application receive a combination of grants and scholarships to cover the amount of their need. Regents Scholars also receive special privileges.

Alumni Scholarships

Since 1936, UCLA Alumni have supported Bruins through merit-based scholarships. The Alumni Scholarships Program is open to all eligible students.

Alumni scholarships are awarded through an application screened by alumni volunteers; final selection is made by Financial Aid and Scholarships. By completing one application, students are considered for several scholarships offered through the alumni program. Students need not be related to UCLA alumni to apply. Alumni scholars’ benefits include getting involved in campus events and organizations, building leadership skills, access to leadership development programs and academic enrichment services, and networking with UCLA alumni.
Prospective first-year and transfer students apply through the UCLA prospective undergraduate scholarship application. Applications open in early January each year and close a few weeks before admission decisions are released. Initial award offers are distributed within one to two weeks of admission decisions. Applicants who do not receive an offer before the Statement of Intent to Register deadline may still receive one during the summer.

**Merit-Based Scholarships for Prospective Students**

Financial awards for prospective first-year students range from $6,000 to $20,000 over four years; for prospective transfer students, $6,000 over two years. Applicants must attend UCLA beginning the fall quarter immediately after the application cycle. To maintain eligibility, students submit a compliance agreement, complete 30 hours of renewal service, and attend an alumni event.

**Need-Based Scholarships for Alumni Scholars**

Awarded alumni scholars may receive up to $5,000 each year in need-based aid, in addition to their merit award, by submitting information on the Free Application for Federal Student Aid (FAFSA) or California Dream Act application, and receiving a need-based financial aid package.

Incoming scholars receive this aid automatically, based on their FAFSA or Dream Act application. Continuing scholars apply for a Wasserman alumni grant using the continuing student undergraduate scholarship application. Continuing scholars must also meet several enrollment and grade criteria.

**Merit-Based Scholarships for Seniors**

The True Bruin Distinguished Senior Award (TBDSA) is awarded to deserving students who exemplify the True Bruin values of integrity, excellence, accountability, respect, and service. Recipients receive a one-time scholarship of up to $5,000. The scholarship is open to any UCLA senior—not just current alumni scholars—who meets eligibility requirements. Seniors apply for the TBDSA using the fall undergraduate scholarship application.

For more information, see Alumni Association scholarships.

**ROTC Scholarships**

ROTC scholarships are awarded on a competitive basis to U.S. citizens regardless of parents’ income. Scholarships supply tuition, a book allowance, fees, and a tax-free monetary allowance during the academic year. Scholarship applications and information are available online for the Air Force, Army, and Navy/Marine Corps. Completed four-year scholarship applications should be submitted by December 1 (Air Force), January 31 (Navy/Marine Corps), or February 28 (Army) of the year preceding college matriculation. Two- (Army and Navy/Marine Corps) and three-year scholarship applications are also available, and are considered when received.

**Grants**

Grants are need-based awards that do not need to be repaid as long as the student maintains eligibility. Depending on funding availability and awarding policy, a financial aid package may include some of the grants listed here.

**Federal Pell Grants**

Federal Pell Grants are based on exceptional need. They are awarded to undergraduate students who are U.S. citizens or eligible noncitizens and who have not earned a bachelor’s degree. Students who file the FAFSA are automatically considered for a Pell Grant. Eligibility is determined by the federal government. Award amounts depend on a student’s Estimated Family Contribution (EFC) and whether enrollment is full time or below. Awards are reduced for students enrolled less than full time.

**Cal Grants A and B**

California residents who attend at least half-time are eligible to apply for a California Student Aid Commission Cal Grant award. The FAFSA or California Dream Act Application and GPA Verification Form are the official applications for these programs. Cal Grant A awards assist low- and middle-income students with tuition and fee costs. Eligibility is based on need and grade-point average. Cal Grant B awards are intended to assist low-income and disadvantaged students with living expenses, books, supplies, and transportation costs. First-year awards may also cover registration fee costs. Renewal award recipients receive registration fee assistance. New awards are limited to students who have completed no more than one full-time semester or two full-time quarters or 16 semester units of part-time study or the equivalent. Students awarded Cal Grant B receive only the stipend portion in their first year. Amounts are subject to change based on the California budget process. If tuition and school services fees increase, CAL Grant fee-paying award will increase correspondingly. Awards are reduced for students enrolled less than full time.

**University Grants**

University grants offer financial assistance from state funds to eligible applicants who meet the FAFSA or Dream Act application priority deadline. Awards range from $100 to over $25,000 and are based on student need. All undergraduate students who are U.S. citizens, eligible noncitizens, or noncitizens eligible for AB 540 waivers and who apply on time are considered. University grant eligibility is subject to
availability of funding. Grants may be exhausted before the end of the academic year. Awards are reduced for students enrolled less than full time.

**University Grants to Purchase UCSHIP**

These grants are based on need, and awarded to on-time FAFSA and California Dream Act applicants to cover the cost of the University of California Student Health Insurance Plan (UCSHIP). Students who waive UCSHIP are not eligible for these grants.

**Federal Supplemental Educational Opportunity Grants**

Federal Supplemental Educational Opportunity Grants (FSEOG) are awarded to undergraduate students with financial need. Awards range from $100 to $4,000. Recipients must be U.S. citizens or eligible noncitizens. Preference is given to Pell Grant and Cal Grant recipients. Only on-time, grant-eligible FAFSA applicants are considered.

**Loans**

Loans allow students to postpone paying some of the costs of their education until they have completed school. A financial aid offer includes a long-term, low-interest loan. Borrowers must realize their commitment and responsibility to repay according to repayment schedules. Before accepting a loan, students should assess their total educational debt and ability to repay after graduation. UCLA makes every effort to assist students during the repayment of their obligation; but UCLA services, including registration and the release of official transcripts, are withheld if the loan becomes delinquent. Seriously delinquent accounts are referred to a professional collection agency for action.

All first-time borrowers must complete a debt management session at **student loans** before funds are released. Parent and graduate PLUS borrowers whose loans are approved on appeal or with an endorser are also required to complete a mandatory counseling session at **federal student aid** in addition to the debt management session.

All loan recipients must complete an exit interview with the Loan Services Office, A227 Murphy Hall, before leaving UCLA for any reason. This interview helps students understand their loan agreement and their rights and responsibilities. If students fail to participate in an exit interview, UCLA places a hold on their academic records and registration materials. Exit information is mailed to students by the Loan Services Office after receipt of notification of separation from UCLA.

**William D. Ford Federal Direct Loan Program**

**Direct Loans**

Direct loans are low-interest subsidized and unsubsidized loans financed by the U.S. Department of Education. Subsidized direct loans are awarded to undergraduate students who have demonstrated financial need. Interest rates are fixed, and adjusted annually by the U.S. Department of Education; contact Financial Aid and Scholarships for additional information. Interest accrues immediately after students graduate or drop below half-time enrollment. Repayment begins six months after students leave school or drop below half-time enrollment.

Unsubsidized direct loans are available to undergraduate, graduate, and professional students who are U.S. citizens or eligible noncitizens regardless of income. Interest accrues from the date of disbursement, but students can avoid the extra costs of accrual by making regular interest payments while in school.

**Direct PLUS Loans**

Direct PLUS loans are designed to help graduate students, and parents of undergraduate students, meet the total cost of education. Graduate students and parents may be eligible to borrow up to the cost of education for the academic year, less any other financial aid received. This loan is available only to borrowers who do not have adverse credit histories. The interest rate is fixed, and adjusted annually by the U.S. Department of Education. Contact Financial Aid and Scholarships for information on current interest rates. Borrowers may want to consult a tax adviser to see if the interest is tax deductible.

**Private Loans**

Private loans are available to students who have received the maximum award amounts under the Direct Loan Program and require additional funding. These loans are sponsored by banks and private lending institutions. Interest rates and re-payment schedules vary. These loans must be certified by the Financial Aid and Scholarships office before funds can be disbursed. A list of private lenders that UCLA borrowers have used in the past is available at Financial Aid publications.

**Short-Term Loans**

Students need not be receiving financial aid to apply for a short-term loan. They may borrow up to $200 for immediate emergency needs; the amount is repayable on the 20th of the month following the month in which the loan was made. To qualify, applicants must be registered UCLA students with satisfactory loan repayment records. Applications are available from the Loan Services Office, A227 Murphy Hall.
Work-Study Program

The Federal Work-Study Program (FWS) is intended to stimulate and promote part-time student employment, particularly for students from low-income families who are in need of earnings to pursue their studies.

Under FWS, the federal government pays a portion of the student’s wage and the employer pays the balance. Through this program, students may work up to 20 hours per week for UCLA, government agencies, or public and private nonprofit agencies. Students employed through FWS supply essential services to UCLA and community, and have the opportunity to hold jobs that may relate to their educational objectives or enable them to gain valuable work experience.

Majors and Degrees

Students may choose from 140 majors in a wide variety of disciplines offered through the undergraduate degree programs of the College of Letters and Science; Graduate School of Education and Information Studies; Henry Samueili School of Engineering and Applied Science; Herb Alpert School of Music; Meyer and Renee Luskin School of Public Affairs; School of the Arts and Architecture; School of Nursing; and School of Theater, Film, and Television. For a complete list of major programs and degrees, see the Majors and Degrees chapter.

Planning a Major

New students should obtain academic counseling before enrolling in classes at UCLA. Counselors can help new students formulate degree objectives based on interests, abilities, and career goals. As students begin to decide on a major, counselors can help them start fulfilling College or school requirements as well as the department requirements necessary for completion of the degree program.

Declaring a Major

Regulations and procedures for declaring a major vary for the College and each school. Students in the College of Letters and Science do not need to declare a major in their freshman year, and can attend with an undeclared major until the end of their sophomore year. Certain schools require students to choose a major when applying for admission, or require early declaration. Check specific policies for declaration with the school or department adviser.

All students must declare a major by the beginning of their junior year (90 quarter units). To declare a major, obtain a Petition to Declare a Major at the College or school office. There is no fee for the petition.

Changing Majors

Changing majors requires the approval of the department of the new major. Changing majors involving a change in College or school requires the approval of the College or school. To change majors, obtain a Program Change Petition online or at the department office.

Capstone Majors and Programs

Capstones are designed to be the culmination of a UCLA undergraduate experience. Capstones range from yearlong sequences of courses or tutorials to a single seminar, and from honors theses to comprehensive seminar projects or internships. They may be based in tutorials, laboratories, advanced courses, or seminars, and may include either individual or team-based projects. Requirements vary among the college and schools. Capstone majors and programs are identified throughout the Curricula and Courses chapter. See capstone initiatives for more information.

Capstone Options

Four types of capstone options represent different expectations for student engagement and independence. Some students might complete capstones of more than one type. For example, having completed an advanced seminar, a student might decide to engage in independent study or an honors project.
Honors Thesis or Project
In a multi-term program, students conduct independent research, laboratory, writing, or other work guided or mentored by faculty. The program culminates in a formal thesis or project that can be granted department honors.

Individual Major
Highly motivated students who find that no single major accommodates their specific interest in a given subject may propose their own major. Proposals are designed with faculty guidance and sponsorship, and thoroughly examined for cogency, completeness, and academic merit.

Individual Project
Students may propose an individual project or paper as the culmination of an upper-division contract course they create with their instructors.

Senior Seminar or Advanced Project
Students may enroll in an advanced senior seminar or project course that requires a comprehensive term paper, performance, or product design.

Learning Outcomes
Learning outcomes describe what students should know, be able to do, and value by the end of their undergraduate educational program. There are four types of outcomes: attitude/value, behavior, knowledge, and skill. They define degree-program goals through focus on student experience and achievement, and allow faculty to evaluate whether students have mastered those goals. Each degree program establishes its own learning outcomes, develops methods for assessment, and uses the results to enhance and improve student learning. Outcomes also help inform prospective and current students about a program’s purpose and value. See learning outcomes for more information.

Degree Requirements
As soon as they are accepted for admission to UCLA, new students should learn the requirements necessary to receive a bachelor’s degree and begin planning an appropriate program of study. All undergraduate students must satisfy UC requirements, College or school requirements, and department requirements.

University Requirements
The University of California has established two requirements that all undergraduate students must satisfy in order to graduate: Entry-Level Writing or English as a Second Language (ESL), and American History and Institutions. It is each student’s responsibility to see that these requirements are fulfilled.

Entry-Level Writing
Because proficiency in English composition is so important to successful performance in many courses, Entry-Level Writing is the only requirement for graduation that students must satisfy before entering UCLA or during their first year in residence. They may meet this requirement by one of the following methods:

- Score 3, 4, or 5 on one of the College Board Advanced Placement Examinations in English
- Score 5, 6, or 7 on one of the International Baccalaureate Higher Level English A Examinations, or score 6 or 7 on one of the International Baccalaureate Standard Level English A Examinations
- Score 680 or better on the SAT Evidenced-Based Reading and Writing
- Score 680 or better on the SAT Reasoning Test, Writing (last administered in January 2016)
- Score 30 or better on the ACT English Language Arts test
- Score 30 or better on the ACT Combined English/Writing test (last administered in June 2015)
- Present transfer credit for an acceptable college-level course in English composition (passed with a grade of C or better) at another institution
- Receive a composite score of 8 or higher on the University of California Analytical Writing Placement Examination (all freshmen from California high schools should have taken the examination during the month of May before they enrolled; others take an examination at UCLA early in their first term)

If students do not meet the requirement in one of the ways described above, Academic Senate regulations require them to enroll in a course determined by performance on the Analytical Writing Placement Examination as early as possible during their first year in residence. Each course must be taken for a letter grade and passed with a grade of C or better. Students receiving a final grade of C– or worse must repeat the course during their next term in residence.

The Entry-Level Writing requirement must be satisfied before enrolling in any course that satisfies the Writing I requirement (English Composition 3, 3D, 3DS, 3E, 3SL). For more information, see Entry-Level Writing.

English as a Second Language
All entering UCLA undergraduate students whose native language is not English and who have not otherwise satis-
fied the English as a Second Language (ESL) requirement, or who are directed to do so by UCLA Undergraduate Admission, are required to take either the Analytical Writing Placement Examination (AWPE) for first-year undergraduate students or the English as a Second Language Placement Examination (ESLPE) for transfer students. Neither the Test of English as a Foreign Language (TOEFL) nor any other English proficiency test can be submitted or accepted in lieu of the AWPE or ESLPE. Students may take the AWPE or ESLPE once only. Unauthorized retakes of the examinations result in an invalid examination score.

First-year undergraduate students who have not otherwise satisfied the Entry-Level Writing requirement and who have not taken the AWPE by the time they enter UCLA must take it in their first term at UCLA. Results of the AWPE are reviewed to determine whether students should complete the ESL requirement prior to satisfying the Entry-Level Writing requirement. If held for the ESL requirement, students must complete the requirement by taking the designated credit-bearing courses.

Transfer students who have completed the Writing I and Writing II equivalent courses at their transfer institution may still be held for the UCLA ESL requirement at the discretion of UCLA Undergraduate Admission. This includes, but is not limited to, all students who received a grade below B in either of these equivalent courses. Transfer students held by UCLA Undergraduate Admission to the ESL requirement must take the ESLPE prior to or during the term in which they are to register. Failure to sit for the ESLPE results in a hold on student records. Depending on the ESLPE results, students may be required to successfully complete one or more credit-bearing courses in the English Composition series.

Students must begin taking courses during their first term in residence at UCLA and must complete each course in sequence with a grade of C or better (C– or a Passed grade is not acceptable). All units are applied toward graduation but cannot be applied toward general education requirements.

**American History and Institutions**

The American History and Institutions requirement is based on the principle that a U.S. citizen attending an American university should understand the history and public institutions of the U.S. under the federal and state constitutions. Candidates for a bachelor’s degree must satisfy the American History and Institutions requirement by one of the following methods:

- Complete a year-long course in American history or American government, or a one-year combination of both, in high school with an average grade of B or better

- Complete any one of the following UCLA courses with a grade of C or better, or a grade of Passed:
  - Asian American Studies M171D
  - Chicana and Chicano Studies M159A, M159B, CM182, M183
  - Economics 183
  - Gender Studies M147B, M147D
  - Study of Religion M142C
  - Equivalent courses completed in UCLA Extension or at another college institution, and accepted by the Board of Admissions, may be used to fulfill the requirement
  - Present a satisfactory result of the requirement, by examination, as administered at another college or university within the state
  - Score 500 or better on the SAT Subject Test in U.S. History
  - Score 3, 4, or 5 on the College Board Advanced Placement Test in American History

Candidates for an instructional credential, but not for a degree, must take one of the following courses: History 143A, 143B, Political Science 145B, or 145C.

Students attending UCLA on an F-1 or J-1 visa may petition for exemption from this requirement by showing proof of temporary residence in the U.S.

**College or School Requirements**

The College and each school with undergraduate programs establish their own degree requirements. These generally include a unit requirement that defines the total number of units to be completed; scholarship requirement that defines a minimum grade-point average; residence requirement that defines the amount of study that must be undertaken in residence at the UCLA campus; and course requirements that may include general education courses, reading and composition courses, foreign language courses, and core courses for the field of study. See the College and Schools chapter for details on requirements set by the College and by each of the schools.

**Department Requirements**

Each department or interdepartmental program sets its own degree requirements in addition to those established by the College or school. Department requirements generally include preparation for the major, which are lower-division courses designed to prepare students for advanced study;
and the major, which are upper-division course requirements. Requirements for each department are listed in the Curricula and Courses chapter.

Degree Policies
Students are responsible for degree policies and regulations as described in the Academic Policies chapter.

Undergraduate Research

Undergraduate Research Centers
The Undergraduate Research Centers (URC) assist students in the humanities, arts, social sciences, and behavioral sciences (URC Humanities, Arts, and Social Sciences, A334 Murphy Hall) and in science, engineering, and mathematics (URC Sciences, 2121 Life Sciences) by supporting scholarly, critical, and creative research. The centers offer mentoring and tutorials, manage the Student Research Program (SRP), and administer summer research programs, academic year research programs, research stipends, and scholarships. They also sponsor two student-run publications—the Undergraduate Science Journal and the Aleph humanities and social sciences journal; organize campuswide conferences and events; and coordinate the Student Research Forum that promotes a broader and deeper understanding of university research, and helps entry-level student researchers define their place in the larger research community. See undergraduate research for more information.

Student Research Program
Administered by each Undergraduate Research Center, the Student Research Program (SRP) offers undergraduates, especially lower division and first-year transfer students, opportunities to become actively involved in the UCLA research community. Working with faculty members on research projects, SRP students gain valuable research training and experience, as well as preparation for advanced undergraduate work and graduate school. Students enroll in course 99 in any department and receive 1 unit of course credit for each 30 hours of research completed during the term. Science, engineering, and mathematics students should see sciences SRP. Humanities, arts, social sciences (HASS), and behavioral sciences students should see HASS SRP.

Undergraduate Research Fellows Program
The Undergraduate Research Fellows Program (URFP) is available on a competitive basis and by application for undergraduate students seeking entry-level research experience. Funded students typically participate in two terms of research (winter and spring quarters) through SRP. Science, engineering, and mathematics students should see sciences URFP. Humanities, arts, social sciences (HASS), and behavioral sciences students should see HASS URFP.

Undergraduate Research Scholars Program
The Undergraduate Research Scholars Program (URSP) offers scholarships from foundations, industry, and individual donors to continuing students (junior-level standing and higher). Applicants must have a strong commitment to research and must complete an honors thesis or a comprehensive independent studies project during the senior year. Applications are accepted during spring quarter for the following academic year. Science, engineering, and mathematics students should see sciences URSP. Humanities, arts, social sciences (HASS), and behavioral sciences students should see HASS URSP.

Academic Research Courses
All academic departments offer undergraduate research courses that allow students to obtain academic credit for their research experiences. Students enrolled in the courses are often upper division students with Student Research Program experience. Department requirements for credit vary, but all departments require a research proposal to enroll in upper division tutorial courses and a research
report to receive credit when the research project is completed. Senior students working toward honors or highest honors in many majors must complete a two-term (or more) research project that culminates in an honors thesis. Arrangements must be made with a faculty mentor before students can register for the course. See the undergraduate adviser in the department of interest for more information.

Internships and Service Programs

Rewarding opportunities in the form of internships, community service work, industry and business positions, local, national, and international programs, and community-based teaching furnish students with insights into a range of professional fields and the chance to apply academic theories firsthand.

Career Center

Internship and International Opportunities

The UCLA Career Center, located in the Strathmore Building, offers advice and leads for internships, fellowships, and other experiential learning opportunities in the U.S. and abroad. Many helpful resources are featured online. Options for current students and graduates include teaching or volunteering abroad, research or fieldwork, and internships in almost every occupation or industry. The UCLA Career Peers advise students on search techniques to identify relevant employers and programs. All career advisers and career peers also offer support for students eager to gain hands-on experience. See internships.

DC Fellows Summer in Washington Program

The DC Fellows summer internship program supports students from all majors and class levels who are seeking summer work experience in Washington, DC. Assignments are available with elected officials, government agencies, public interest groups, international organizations, media, and a wide range of public and private sector organizations. The fellows program offers advice on searching and applying for internships, as well as housing support and the option to apply for alumni-sponsored scholarships.

Quarter in Washington, DC

The Center for American Politics and Public Policy (CAPPP) selects undergraduates each fall, winter, and spring to participate in its Quarter in Washington Program. The program offers an exciting opportunity to combine UC courses with research and field experience.

Students live at the UC Washington Center for up to 11 weeks, dividing their time between coursework and a part-time internship placement. They can earn credit in multiple majors. The core course, a research development seminar, is multiple-listed in political science, sociology, public affairs, communication, and history, and is eligible for College Honors consideration. The internship placement fulfills the internship requirement for the Community Engagement and Social Change minor. At least one course in a subject other than political science, such as economics or history, is usually offered each quarter. All courses take advantage of the unique resources of Washington for study and research.

UC Washington Center administrators help students find a field placement that complements a substantial research project. Placements have included C-SPAN, the Human Rights Campaign, the Department of Justice, Smithsonian museums, the Wilson Center, and various members of Congress.

Reserve Officers’ Training Corps

The University of California, in accordance with the National Defense Act of 1920 and with the concurrence of The Regents, offers courses and programs in military training. This voluntary training allows students to qualify for an officer’s commission in the Army, Navy, Air Force, or Marine Corps while completing their college education. ROTC courses are offered by three departments within the College of Letters and Science: Aerospace Studies (Air Force), Military Science (Army), and Naval Science (Navy and Marine Corps). Equipment, uniforms, and textbooks are supplied. The programs supply a monthly stipend to eligible students while on contract and additional financial benefits, including tuition and fee scholarships, to qualified students. Individual programs are described in the Curricula and Courses chapter.

Teaching Opportunities

Exciting teaching programs prepare undergraduate students for careers in teaching or education and allow them to serve in classrooms in the Los Angeles area. Many teaching opportunities are offered in conjunction with the Graduate School of Education and Information Studies (GSE&IS), which helps coordinate programs leading to various instructional credentials or to graduate study.
Education Studies Minor
The Education Studies minor offers a sequence of core and elective courses designed to introduce students to key issues, research, and policies in education. Students participate in a range of seminar and practicum courses to fulfill program requirements. The program office is in 1002 Moore Hall. See the program description in the Curricula and Courses chapter.

Math for LA
Math For LA (formerly Joint Mathematics/Education Program)—offered jointly by the Graduate School of Education and Information Studies and the Mathematics Department—consists of two pathways, each leading to a California Single Subject Teaching Credential in Mathematics. In the concurrent credential pathway, students complete courses in education and mathematics during the junior and senior years to earn a California teaching credential upon graduation. In the MEd pathway, students complete courses in education and mathematics during the senior year. They complete additional education courses the following summer to earn a California teaching credential. Over the following academic year, they complete graduate courses to earn a master’s degree in Education. For information, contact the Curtis Center in 5602 Mathematical Sciences Building; or the Mathematics Student Services Office in 6356 Mathematical Sciences Building.

Mathematics for Teaching BS
The Mathematics for Teaching capstone major is primarily designed for students preparing for careers in curriculum, instruction, and/or assessment of high school mathematics. It exposes students to a broad range of topics in high school mathematics, and offers deep investigation into several core topics to help students develop a professional understanding of high school mathematics. The department’s California-approved subject matter preparation program is embedded in the major, so that students who complete the major also satisfy the California subject matter competence requirement for a Single Subject Teaching Credential in Mathematics. The major also offers deep investigation into pedagogical knowledge required for teaching high school mathematics as recommended by the Conference Board of Mathematical Sciences. For information, contact the Curtis Center in 5602 Mathematical Sciences Building. At the end of the senior year, students may request department verification of the California Subject Examination for Teachers (CSET). See the degree description in the Curricula and Courses chapter.

Mathematics for Teaching Minor
The Mathematics for Teaching minor is designed for students majoring in fields other than mathematics who want to prepare for a career in curriculum, instruction, and/or assessment of high school mathematics. The minor offers deep investigation into several core topics required for a professional understanding of high school mathematics and for success on the California Subject Examination for Teachers (CSET). The CSET is one means of satisfying the subject matter competence requirement for a California Single Subject Teaching Credential in Mathematics. The minor also offers deep investigation into the pedagogical knowledge required for teaching high school mathematics. Post-baccalaureate credentialing programs see that students who completed this minor have taken coursework in secondary mathematics from the advanced standpoint recommended by the Conference Board of Mathematical Sciences and the California State Commission on Teacher Credentialing. The minor is not open to students in any Mathematics Department major. See the minor description in the Curricula and Courses chapter.

Science Education Minor
The Science Education minor offers preparation for careers where teaching is an important component, including middle and high school, community college, university, or other science-related outreach careers. Students who wish to become middle or high school science teachers or who plan to teach as graduate students in their disciplines are the primary focus. The minor supplies the broad general science background included in California state subject matter credential examinations, education coursework, field experiences in the development, management, and teaching of science laboratory instruction in grades 7 through 12, and UCLA-based teaching practicums in lower-division science laboratory. See the program description in the Curricula and Courses chapter.

Science Teacher Education Program
The Science Teacher Education Program (STEP), cosponsored by the College of Letters and Science and GSE&IS, allows science majors to observe and participate in classrooms in schools in the Los Angeles area and to begin teacher education courses in their senior year. Students earn a preliminary teaching credential the summer after the bachelor’s degree is received and a master’s degree in education the following academic year. For details, contact any science department undergraduate counseling office.
Teacher Education Program

The Teacher Education Program allows students to obtain both a Master of Education degree and a preliminary multiple or single subject credential in a full-time, two-year program that supplies clinical classroom experience and a full-year urban teaching residency.

UCLA California Teach

The UCLA California Teach program encourages and supports undergraduate students who are interested in exploring K-12 mathematics and science teaching as a potential career. Courses include 24 hours of observation, participation, and assisting in K-12 schools, and seminars to support those field experiences.

Visual and Performing Arts Education Minor

The Visual and Performing Arts Education (VAPAE) minor in the School of the Arts and Architecture is an interdisciplinary and interdepartmental series of courses designed to introduce students to key issues and methodologies in the field of arts education for multiple publics and to a broad range of careers in the arts, including K-12 teaching, museum education, community arts education, creative arts therapies, and arts advocacy.

The arts education teaching sequence, an important component of the minor, consists of three courses in which selected undergraduate students explore core issues in arts education, creativity, and social justice. Students are assigned to K-12 classrooms in the Los Angeles area where they first observe and then implement an eight-week sequential arts-based lesson plan under the supervision of the guiding teacher.

Students are able to focus their studies on the following areas: strategies and methods in teaching in the arts, arts in the community, teaching the arts in non-traditional settings and with special populations, social-emotional learning in the arts, and interdisciplinary arts training.

Upon completion of the minor, students are eligible to be hired to teach in VAPAE Afterschool and Arts Enrichment Programs that take place at school and community sites in Los Angeles. The program office is in 2101 Broad Art Center. See the program description in the Curricula and Courses chapter.

Center for Community Learning

The Center for Community Learning advances community-engaged scholarship to support student learning and create value for the broader community. The center supports faculty, students, and community partners to create successful community-engaged courses and research, credit-bearing internships, and AmeriCorps programs. The center is home to the undergraduate minor in Community Engagement and Social Change, and such signature student scholarship programs as Astin Community Scholars and Changemaker Scholars. The office is in A26S Murphy Hall.

University of California Center Sacramento

The University of California Center Sacramento (UCCS) is operated by UC Davis. The center’s long-term goal is to bring together UC faculty members with undergraduate students to pursue research related to state government, politics, and public policy. UCCS places students in intensive one-term policy-related internships throughout the state Capitol building and in the Sacramento policy community. UCCS is open to all juniors and seniors with at least a 3.0 grade-point average.

Lower-Division Seminar Programs

Collegium of University Teaching Fellows

The Collegium of University Teaching Fellows (CUTF) offers outstanding graduate students the opportunity to develop and teach lower division seminars in their area of expertise. These unique courses cover all areas, from the humanities to the life, physical, and social sciences. Undergraduate students take courses that are at the cutting edge of a discipline and benefit from a small-seminar environment. GE and honors credit is granted for most seminars, which are offered in winter and spring quarters only. Enrollment is limited. For more information, contact the Center for the Advancement of Teaching by e-mail.

Fiat Lux Seminar Program

As a cornerstone of the innovative undergraduate curriculum at UCLA, up to 200 seminars are offered annually through the Fiat Lux Seminar Program. These seminars provide students and faculty with small-group settings to engage in meaningful discussions on a range of topics. Students receive 1 unit of academic credit (Passed/Not Passed grading), and faculty members from across campus have
the opportunity to share with undergraduates their areas of intellectual passion and expertise. True to the University of California’s motto: *Fiat Lux—Let There be Light*, these seminars illuminate the many pathways of discovery. For details about seminar offerings each term, see the Schedule of Classes.

**Honors Collegium**

*Honors Collegium*, a series of interdisciplinary honors courses, offers a unique educational experience where students learn how to think critically and creatively and how to communicate effectively. Courses emphasize the breadth of an interdisciplinary approach to learning and focus on small classes and individual attention.

**Undergraduate Student Initiated Education**

*Undergraduate Student Initiated Education* (USIE) is an innovative program designed to provide a select group of juniors and seniors with the opportunity to develop and facilitate, under faculty supervision, a lower-division seminar for their peers.

The application and selection period is during spring quarter. During the fall and winter quarters (of the next academic year), selected student facilitators work closely with their faculty mentors in two 1-unit independent study courses (one each quarter) focused on the content-area of their proposed seminar. In addition, student facilitators enroll in two 1-unit pedagogy seminars (one each quarter) in which various facilitation strategies and techniques are discussed in preparation for leading their own spring seminar.

Through the independent study courses and pedagogy seminars, student facilitators develop a formal syllabus for their spring seminars for review and approval by the USIE Faculty-Student Advisory Committee and the Faculty Executive Committee (FEC).

**New Student and Transition Programs**

UCLA *New Student and Transition Programs* welcome new undergraduate students to UCLA and ease their transition into and throughout the first year. New Student Orientation introduces students to UCLA through academic counseling and educational planning and orient students to all the special programs available to them. During orientation, students work in small groups with peer counselors and gain insight into necessary academic skills. They learn how to plan their academic program and become familiar with educational opportunities, student services, and facilities available at UCLA. Individual counseling sessions help students adjust to life at UCLA and fulfill the advising requirements of the College or school. Sessions for family members are also offered.

New Student Orientation sessions are three-day, two-night, residence hall live-in programs for first-year students; and one-day programs for transfer students. There is a fee for participation.

New Student and Transition Programs also offers the College Summer Institute (CSI), a seven-week residential program in which new first-year students get a head start on graduation requirements through UCLA summer courses. During the academic year, additional programs offer academic advising and successful transition to the second year. For more information, contact the New Student and Transition Programs office in 201 Covel Commons.

**College and School Advisers**

The College and each school and academic department at UCLA have a staff of academic counselors and advisers to help students plan their academic program, monitor their progress toward the bachelor’s degree, provide information about degree requirements, and assist with academic problems.

Students in the College are served by one of four counseling units: Academic Advancement Program, College Academic Counseling, Honors Programs, and Student Athletics. Undergraduates in the seven professional schools are served by their respective student services offices. See the Registrar’s academic counseling web page for a list of College and school advising office addresses. To contact a departmental adviser, see the individual department in the Curricula and Courses chapter; a list of department websites is available online.

**Academic Advising and Support**

Academic advising and support is available from student, staff, and faculty advisers; and through student services, tutorials, and other special programs.
Academic Advancement Program

Academic Advancement Program (AAP) is the largest university-based student diversity program in the U.S. Its programs for first-generation, low-income, and historically underrepresented students help ensure their academic success, retention, and graduation; and support their pursuit of academic excellence. AAP aims to increase member entrance to graduate and professional schools; develop academic, political, scientific, economic, and community leadership; and promote UCLA access and academic success for diverse high school and community college students across California.

Students are eligible for AAP if their academic profiles and personal backgrounds may impact their university experience and their retention and graduation from UCLA. Students are also eligible if they are part of any federally funded program that requires counseling, tutoring, or mentoring. For more information, contact AAP New Student Programs, 1230 Campbell Hall.

Center for Community College Partnerships (CCCP)

The center develops academic partnerships between California community colleges—particularly those with large underrepresented populations—and UCLA, to improve student competitiveness for UC admissions and increase the transfer admission pool diversity. Its Scholars Program offers mentoring and summer programs to help prepare students for transfer to a four-year school.

Graduate Mentoring and Research Programs (GMRP)

The office offers AAP undergraduate students one-on-one mentoring in preparation for graduate studies and professional school admission. It also offers workshops on graduate school topics. Appointments are with and workshops are led by current graduate and professional school student mentors.

Arts Initiative Program

The program focuses on integration of the arts into different scholarly fields. AAP students engage in interdisciplinary research involving fine, commercial, and performing arts with an emphasis on connections to social justice issues.

Carter-Huggins Community Development and Social Justice Program (CDSJ)

The program assists AAP students interested in pursuing graduate study in public health, public policy, social welfare, and urban planning. Students conduct applied research projects while interning at community-based social justice and equity organizations.

Educators for Tomorrow (EFT)

The program assists a new generation of socially conscious educators. AAP students participate in community service programs, internships, and research related to all facets in the field of education.

High Achievement in Math and Science (HIGH AIMS) Program

The program supports AAP students in their chosen health science professions. It offers career and academic guidance, and includes graduate school preparation, workshops, and information sessions.

 McNair Research Scholars Program

The two-year program prepares AAP students for PhD programs. Students conduct an independent research project and participate in a research-intensive summer program.

Peer Learning

AAP Peer Learning offers numerous academic support sessions with peer learning facilitators (PLFs). Mainly upper-division undergraduates, PLFs are academic role models who have successfully completed courses in the mathematics, sciences, humanities, and social sciences disciplines. PLFs facilitate individual and small-group sessions designed
to help AAP students recognize their own intellectual authority by encouraging them to engage with course materials actively, critically, and independently.

Research Rookies Program
The program gives second-year AAP students the opportunity to develop entry-level research projects in humanities and social sciences. Over two academic terms, students gain valuable knowledge and experience regarding research.

Scholarships
Eligible AAP students may receive merit and need-based scholarships through established financial aid programs. AAP also awards scholarships; see scholarships for help with the application process.

Summer Graduate Preparation Program
Over six weeks during summer session, students prepare to apply to graduate or professional school. Students draft their application materials with a graduate student mentor. The program is not unit or credit bearing.

Freshman/Transfer Summer Program
This seven-week residential summer program prepares incoming AAP freshman and transfer students for the academic rigors of UCLA. Students build an academic support network that supplies interaction and broadens life experiences. Students enroll in three UCLA courses that fulfill graduation requirements, and get support in small groups or individual sessions from teaching assistants and peer learning facilitators.

UndocuBruins Research Program
The program prepares undocumented AAP students for graduate school. Students conduct independent research projects related to issues regarding immigration and immigration policy. Special emphasis is given to resources that best serve undocumented students and their communities.

Vice Provost Initiative for Precollege Scholars (VIPS)
This partnership between UCLA and the Los Angeles and Pasadena school districts prepares historically underrepresented students in 10 high schools to become competitively eligible for admission to UCLA and other flagship universities. VIPS offers peer mentoring, summer programs, Saturday academies, and research opportunities to scholars and their families.

Academic Excellence
Eligible students receive the following honors and awards in recognition of academic achievement:

Dean’s Honors List
The School of the Arts and Architecture; Graduate School of Education and Information Studies; Henry Samueli School of Engineering and Applied Science; Herb Alpert School of Music; Meyer and Renee Luskin School of Public Affairs; School of Nursing; School of Theater, Film, and Television; and the deans of the five divisions in the College of Letters and Science award Dean’s Honors to deserving students each term. Honors are based on the grade-point average attained within a specified number of units. Contact the College or school for more information.

Latin Honors
The College and schools award Latin honors according to overall grade-point average at graduation. To be eligible students must have completed at least 90 (98 for the School of Nursing) UC units for a letter grade. The levels of honors are summa cum laude, magna cum laude, and cum laude. Specific requirements vary for each level and are detailed in the College and Schools chapter. See the Registrar’s honors web page for the most current calculations of Latin honors.

Departmental Honors
In the College of Letters and Science, departmental honors and highest honors are awarded at graduation on the recommendation of a student’s major department, based on successful completion of a departmental honors program. Students should contact their department for its requirements.

Departmental Scholar Program
Departments in the College of Letters and Science and each school—except the Herb Alpert School of Music; School of Nursing; and School of Theater, Film, and Television—may nominate exceptionally promising juniors and seniors as Departmental Scholars to pursue bachelor’s and master’s degree programs simultaneously. Nominations are submitted to the College or school dean for recommendation to the dean of the Graduate Division. Students interested in becoming Departmental Scholars should contact their departments well in advance of application dates for graduate admission (see the deadlines web page).
Honor Societies

Alpha Lambda Delta and Phi Eta Sigma

Alpha Lambda Delta and Phi Eta Sigma are national honor societies that recognize high-achieving first-year students. Membership is based solely on academic achievement and is by invitation only. To be eligible, students must have a 3.5 grade-point average with 12 graded UC units in the first quarter of their first year at UCLA, or a cumulative 3.5 GPA at the end of the first year. Invitations are issued in winter quarter, and an induction ceremony is held during spring quarter. For more information, send e-mail to the Office of the Dean of Students.

Golden Key

Golden Key is an international interdisciplinary academic honors organization dedicated to excellence. Students qualify on the basis of objective academic criteria. To be eligible, students must have a UC grade-point average of 3.6 after their first quarter at UCLA; and have sophomore, junior, or senior standing at the time of invitation.

The society recognizes and encourages scholastic achievement and excellence in all undergraduate fields of study. It unites with collegiate faculties, staff, and administrators in developing and maintaining high standards of education, and promotes scholastic achievement and altruistic conduct through voluntary service. Invitations are issued annually. For more information, send e-mail to the Office of the Dean of Students.

Mortar Board

Mortar Board is a national honor society for college seniors that recognizes outstanding and continual scholarship, leadership, and service to the campus community.

To be considered for membership, candidates must have completed 90 units and must have attained at least a B average or be in the highest 35 percent scholastically of the junior class, whichever is higher. Applications are available online early in winter quarter and are due by mid-February. Approximately 35 members are selected each spring by the outgoing chapter. For more information, contact the Student Organizations, Leadership, and Engagement (SOLE) office, 105 Kerckhoff Hall.

Phi Beta Kappa

Phi Beta Kappa is a national academic honors society in the humanities, liberal arts, and sciences, founded at the College of William and Mary in 1776. Membership is conferred for high scholastic standing and is determined by vote of the UCLA Eta Chapter council according to scholarship records. Students do not apply for Phi Beta Kappa membership.

At UCLA, only graduating seniors and selected juniors are elected to membership. The annual election is held in late April, with the initiation ceremony in June. At present, the minimum grade-point average considered is 3.67 (for 140 or more UC units); the minimum number of UC units considered is 90 (students at the 90-unit level must have at least a 3.85 GPA).

A reasonable distribution of courses in the humanities and sciences is also required, as is a foreign language course at the intermediate level (one level above the UCLA language requirement for graduation) or above. A Passed grade is computed approximately as a B, depending on number of courses taken and graded units. Elected students are notified through MyUCLA.

For more information, contact Phi Beta Kappa in the UCLA Scholarship Resource Center, 233 Covel Commons.

Tau Sigma

Tau Sigma is a national honor society that recognizes the high academic achievement of first-year transfer students. To become a member, UCLA students must have a 3.5 grade-point average or better during their first term at UCLA after transferring either from a community college or a four-year institution (summer quarter not typically included). Invitations are issued after each regular academic term, and an induction ceremony is held during spring quarter.

Tau Sigma honors the large UCLA transfer community for its academic achievement. The society also holds leadership, networking, and social activities. For more information, send e-mail to Tau Sigma or contact the Office of the Dean of Students.
Graduate Study

Graduate students at UCLA benefit from—and contribute to—the resources of one of the country’s outstanding research universities. A distinguished faculty committed to research and teaching; an extensive library system ranked among the best in the nation; and excellent research centers, institutes, and laboratories in virtually every major discipline all offer extraordinary opportunities for graduate endeavor.

Graduate training at UCLA takes place in classrooms, laboratories, and libraries; in specialized seminars; through independent research; and in teaching experiences. Graduate education is enriched by several hundred postdoctoral and visiting scholars from other universities who engage in research and, in some instances, teaching at UCLA every year. This unique research environment promotes the quality of original work and study that is the hallmark of graduate education.

The degree of Master of Arts or Master of Science, or one of several professional degrees such as Master of Business Administration, is intended to develop mastery of a field and prepare students for the practice of a profession. The doctorate degree (PhD, EdD, and so forth) is designed to prepare students for creative activity and original research, often in association with college or university teaching.

Shared Governance

Graduate degree programs, courses, and requirements are governed and administered by the Graduate Council, Graduate Division, College and school faculty executive committees, and department advisers.

Graduate Council

The Graduate Council is a standing committee of the UCLA Academic Senate. The council is responsible for the establishment of UCLA policy and standards for master, doctorate, and graduate professional degree programs (other than those in law, medicine, and dentistry) and post-doctoral scholars; the approval, review, and monitoring of graduate degree programs; and recommendations about fellowships and assistantships. It also recommends to the systemwide Coordinating Committee on Graduate Affairs programs that lead to new degrees; and delegates authority to Graduate Division, and College and school faculty executive committees.

Graduate Division

The UCLA Graduate Division administers policy established by the Academic Senate and its Graduate Council. It oversees graduate recruitment and admissions (including recruitment of a diverse student body), fellowships, teaching assistantships, graduate student researcher appointments, and other graduate student support; and maintenance of high quality standards in all graduate programs.

Graduate Adviser

At matriculation, a graduate student usually selects or is assigned a graduate adviser who assists in program planning and completion of degree requirements. Sometimes this role is temporarily assumed by a faculty adviser assigned to the program as a whole. When the student’s master or doctoral committee is established, the chair of the committee assumes the adviser role.

Graduate Admission

Diversity, Inclusion, and Admissions
1237 Murphy Hall
310-206-3411

Meeting the minimum requirements does not ensure graduate admission, which is limited by the number of places and the amount of student support available in UCLA graduate programs. Applicants are evaluated on scholastic qualifications and formal preparation for the graduate field of study. Departments may have other requirements for admission, which are listed by department and by degree and can be accessed from the Graduate Division website.
Application for Admission
Prospective students apply online. A nonrefundable application fee is required when the application is submitted.

When to Apply
Most departments and schools have deadlines in November and early December for the following fall quarter. Consult the admissions section of the Graduate Division website for specific deadlines for each major. A few departments accept applications for winter and spring quarters.

At the discretion of the department, applications may be considered if submitted after a stated program deadline, provided the enrollment limits have not been exceeded.

Entrance Requirements
U.S. applicants to graduate standing must hold a bachelor’s degree from a regionally accredited institution comparable in standard and content to that awarded at the University of California. Degrees granted on the basis, for example, of nonacademic prior learning, test scores, and other than organized supervised coursework in academic subjects are not considered comparable. A scholastic average of 3.0 (B) on a 4.0 scale, or better (or its equivalent if the letter grade system is not used), is required in undergraduate coursework and in any postbaccalaureate study.

See also requirements for international applicants below.

Supporting Materials
Supporting materials to be submitted, including official transcripts of record and nonrefundable application fee, are specified on the graduate admissions website. Submitted materials become the property of UCLA and are not returnable.

Graduate Record Examination
Applicants for admission to a department or school that requires Graduate Record Examination (GRE) scores should arrange to take the examination no later than December, so scores arrive on time. GRE scores should be sent directly to the prospective department and not to Graduate Division.

GRE registration, and information about both paper and computer-based testing, are available from Educational Testing Service (ETS). Information on GRE fee waivers is also available on the ETS site.

Letters of Recommendation
Most graduate professional schools, departments, and interdepartmental programs at UCLA require applicants to submit three letters of recommendation. Letters typically augment, validate, or explain information provided in the application; and should be written by persons qualified to analyze student’s abilities and academic promise.

Admission to the Schools of Dentistry, Law, and Medicine
Applicants for MS and PhD programs in the schools of medicine and dentistry should apply for admission to Graduate Division as described above. For admission to DDS, JD, LLM, SJD, and MD degree programs in the schools of dentistry, law, and medicine, applicants should consult school websites.

Admission to Bioscience Programs
Applicants to PhD programs in fields related to life and biomedical sciences apply for admission to one of 11 individual research areas. Graduate Programs in Bioscience is a consortium of PhD programs organized into specialized research groups, called home areas, that serve as the admissions and training units associated with the degree-granting programs. Through this structure, students can specialize in their chosen area while maintaining the flexibility to move between home areas to best pursue their research interests.

Degree-Granting Programs and Home Areas
Consortium PhD programs offer the research home areas listed.

Bioinformatics
Medical Informatics

Human Genetics
Genetics and Genomics

Molecular Biology
Biochemistry, Biophysics, and Structural Biology
Cell and Developmental Biology
Gene Regulation
Immunity, Microbes, and Molecular Pathogenesis

Molecular, Cellular, and Integrative Physiology
Molecular and Medical Pharmacology
Molecular Pharmacology: Diagnostics, Therapeutics, and the Biology of Disease

Neuroscience

Physics and Biology in Medicine
Additional opportunities for doctoral study include Biochemistry, and Molecular and Structural Biology in the College of Letters and Science; Oral Biology in the School of Dentistry; and Molecular Toxicology in the Fielding School of Public Health.

International Applicants

International applicants who have completed their postsecondary education outside the U.S. are expected to hold a degree, with above average scholarship, from a university or university-level institution. If their examinations have been graded Excellent, Very Good, Good, and Pass, applicants must have at least a Very Good general rating to qualify for admission.

Applicants who hold a three-year Bologna degree may be considered for admission on the recommendation of the department, program, or professional school. Applicants who hold a three-year ordinary or pass degree—or who hold a professional diploma in accounting, business, librarianship, social work, physical education, health education, and so forth—or a four-year degree, diploma, or higher certificate from a technical, vocational, or postsecondary specialized school should not apply for graduate admission. Persons with memberships in professional associations such as an Institute of Chartered Accountants, Institute of Chartered Secretaries and Administrators, and so forth, do not qualify for graduate admission unless they also hold recognized university-level degrees or titles.

Applicants should submit transcripts of record, in the original language and with an English translation certified by the institution, for all college and university work. Applicants who are officially offered admission must submit official academic records before the term of admission begins. The original of an academic record that cannot be replaced must not be sent; a properly certified copy should be sent instead. Specific information for applicants from different educational systems is available from required academic records.

English Language Proficiency

Most international applicants to UCLA graduate school are required to submit scores from either the Test of English as a Foreign Language (TOEFL) or the International English Language Testing System (IELTS) examination. International students who hold a bachelor’s or higher degree from an institution, for all college and university work. Applicants who plan to work as teaching assistants (TAs) are required to take the Test of Oral Proficiency (TOP), which is administered by the Center for the Advancement of Teaching (CAT). Students who do not plan to work as teaching assistants do not need to take the TOP.

Students who hold a bachelor’s degree from a U.S. institution are exempt from taking the TOP. However, those holding only a master’s degree from a U.S. institution are not exempt.

For students who receive a clear pass (7.1 or above) on the TOP, no coursework is required. Students who receive a marginal pass (between 6.4 and 7.0) are required to take an approved oral skills course either before or during their first term as teaching assistants. Students scoring 6.3 or below are not eligible to become teaching assistants and are encouraged to complete recommended ESL coursework before taking the TOP examination again.

No other oral examination is accepted. Entering graduate students who plan to work as teaching assistants in their...
first term at UCLA must arrive early enough to take the TOP before instruction begins. The examination schedule and other information about TOP are available on the CAT web page.

Special Admission Policies

No Degree Objective

UCLA has no special limited or unclassified categories of graduate admission. Under some circumstances, however, applicants may be admitted for coursework without a degree objective. For example, teachers with a master’s degree who wish some refresher study, or international students on a one-year stay in the U.S., may wish to apply in this manner. Requirements for admission are the same as those for degree programs, and the academic program must agree to accept the student for no degree objective (NDO) status. All admissions to NDO status must be specially approved by the dean of the Graduate Division, as must any University financial assistance for students having NDO status.

Duplicate Degrees

The University of California, in general, discourages the duplication of advanced degrees. At the same time, it recognizes that a professional degree does not duplicate an academic one, and that pressing needs may exist for degrees in different areas (see Graduate Concurrent and Articulated Degrees in the Majors and Degrees chapter). Students who apply for a second academic degree at the same level or lower than the one they already hold are required to show compelling cause to the department. The Graduate Division is particularly concerned that a careful review and special justification be made by the graduate program in all cases where an applicant or continuing student is recommended for admission to a second doctoral program. This concern also extends to a student support recommendation for pursuit of a second doctorate degree. All degree requirements and UCLA regulations apply just as they do for a first degree. Courses and other degree requirements already applied to the earlier degree may not be applied to the second.

Summer Session Classes

Enrollment in summer session classes does not constitute admission to graduate standing, nor does it substitute for the required continuous registration in fall, winter, and spring quarters. Students who wish to apply summer sessions classes to their subsequent graduate program should consult in advance with their departmental adviser. This is also true if they have been readmitted to graduate standing and wish to resume graduate study in summer sessions. Information and applications are available from Summer Sessions, 1331 Murphy Hall.

If students take summer session classes following the award of the bachelor’s degree, those grades do not appear on the undergraduate transcript (they are included on a separate transcript). After students are accepted by Graduate Division, summer session grades are included on the graduate transcript and computed in the grade-point average.

Readmission

Students who have registered at any time as a graduate student at UCLA and return after an absence (except a formal leave of absence) must file an Application for Graduate Admission.

See the Academic Policies chapter for readmission procedures.

Registration

Registrar’s Office
1113 Murphy Hall
310-825-1091, option 6

Registration consists of paying fees and enrolling in classes.

1. Registration fees and other UCLA charges are due the 20th of each month. BruinBill accounts can be viewed through MyUCLA.

2. Enrollment in classes is completed through MyUCLA. Students must complete both processes by the established deadlines to be officially registered for the term.

Graduate students must be either registered and enrolled or on an official leave of absence every term until their degrees are awarded. As an exception, certain graduate
students may be eligible to pay the filing fee. Failure to register, have filing fee status, or be on an official leave of absence for any academic term (fall, winter, or spring quarter) constitutes withdrawal from UCLA.

Paying Fees
Details on fee payment, enrollment procedures, and deadlines are published on the Registrar’s website.

Electronic Billing
BruinBill accounts are administered electronically (e-bill) through MyUCLA. Financial activity is displayed for the current term, as well as account activity for the last 24 months. Students can pay their BruinBill account electronically using an electronic check with no fee; or American Express, Discover, MasterCard, and VISA credit cards with a fee.

Annual Graduate Fees
Although the exact cost of attending UCLA varies by program, there are some fees that all UCLA students must pay. Each entering and readmitted student is required to submit a Statement of Legal Residence and Statement of Intent to Register to the Graduate Division Diversity, Inclusion, and Admissions office. A student classified as a nonresident of California must pay nonresident supplemental tuition (NRST) in addition to other registration fees. Legal residents of California are not required to pay NRST. Annual graduate fees and NRST are published online. For more information, see Residence for Tuition Purposes in Appendix A.

Professional Degree Program Fees
Students admitted to professional degree programs must also pay professional degree supplemental tuition (PDST), which varies by program. PDST amounts are published on the Registrar’s fees web page.

Self-Supporting Degree Program Fees
Students in self-supporting degree programs pay an annual fee, which may be assessed per term, course, or unit. For details, contact the individual program. Self-supporting program fees are published on the Registrar’s self-supporting fees web page.

Miscellaneous Fees
Miscellaneous fees include charges for late registration fees payment. Late fees also apply if students file their study list late or do not pay off BruinBill balances on time. Fees are charged if any check is returned by a bank for any reason. Charges are assessed for most petitions and other special requests. There is also a fee for advancement to doctoral candidacy. Study list, document and service, transcript-related, and degree and diploma fees are published on the Registrar’s website.

Student Health Insurance Fee
All graduate students are automatically assessed for and enrolled in the University of California Student Health Insurance Plan (UCSHIP) as a condition of registration at UCLA. Continued enrollment in a qualified health insurance plan is mandatory during all registered terms. UCHP covers medical, vision, dental, and behavioral health services. The UCHP fee is billed each term along with other UCLA fees. UCHP fulfills all requirements mandated for a qualified health insurance plan as defined by the University of California. The Ashe Student Health and Wellness Center is the primary health care provider for UCHIP, and where all nonemergency medical care is initiated.

Nonregistered students (those who withdraw, or are on approved leave or planned academic leave) may have access to UCHIP services under certain conditions. Contact the Ashe Center to learn more.

UCHIP Waiver
Students may waive UCHIP if they maintain active enrollment in a qualified health insurance plan that meets all established requirements, apply for a waiver within established deadlines each term, and correctly complete the online waiver form. Students are responsible for providing complete and accurate information. Third-party individuals may not waive UCHIP for a student. Waivers must be submitted before the term fees payment deadline. Deadlines are strictly enforced, and no refunds are issued after the deadline. For more information, see the Ashe insurance web page.
**Fee Refunds**

Students who formally withdraw from UCLA or take an approved leave of absence may receive partial refunds of fees. For more information, see Withdrawal in the Academic Policies chapter. Consult the Registrar’s refunds web page for policy details and specific refund deadlines for each term.

**Fee Deferrals**

Academic apprentice personnel are eligible to receive a fee deferral for registration fees assessed during the term in which they serve as an academic apprentice. For more information, students should contact their hiring department. Students are responsible for paying fees by the deferred payment deadline, which is two months after the standard term due date. Whether students attend UCLA, take a leave of absence, or withdraw from the University, they are responsible for the fees; but may be eligible to receive a partial fee refund according to the refund schedule. Fees not paid by the deadline are subject to late fees.

**Reduced Nonresident Supplemental Tuition**

The annual nonresident supplemental tuition (NRST) for graduate doctoral students who have advanced to candidacy is reduced by 100 percent, effective the term after the student is advanced. Doctoral students may receive this reduced NRST rate for a maximum of three years. After three years, the full nonresident rate is assessed.

**Filing Fee**

Graduate students may be eligible to pay the filing fee (half the quarterly student services fee) in lieu of full term registration fees, for the filing fee usage term in which they expect to complete final degree requirements and receive their degree. Students are not eligible to pay the filing fee unless registered for the immediately preceding term. For more information on other eligibility requirements, see filing fee.

Students who pay the filing fee are not eligible for UCLA services, and are not considered to have the same status as registered students.

**In Absentia Registration**

Graduate students who conduct research or engage in approved degree-program-related activities outside California may be eligible for in absentia registration, and reduction of tuition and the student services fee to 15 percent of the full amounts. See In Absentia Registration in the Academic Policies chapter for more information.

**Fees Notice**

All fees are subject to change without notice by the Regents. Current academic year fees and update information are available on the Registrar’s fees web page.

**Annual Budget Estimates**

Budgets are designed to serve as a guide and are subject to change without notice. Budget information is available from Financial Aid and Scholarships. Budgets for the schools of medicine, dentistry, and nursing are higher due to specialized supplies. More information can be found on the websites of the schools of dentistry, law, medicine, and nursing for their respective students.

**Class Enrollment**

Students enroll in classes through MyUCLA during assigned times—called enrollment appointments—when they are allowed to enroll. The Class Planner feature allows students to create class plans prior to enrollment, share plans with counselors, and quickly add classes during their enrollment appointment. Students use the Find a Class or Section feature to search the Schedule of Classes and add available classes to their class plan or study list.

MyUCLA is also used to view enrollment appointments; drop classes; change grade type and number of units; exchange classes; and view the study list, which includes information on class meeting times, final examinations, classmates, grades, textbooks, and class websites. For more information, see Registrar’s study list and enrollment policies web pages.

For classes that require written approval or specialized processing, students may enroll in person Monday through Friday from 9 a.m. to 4 p.m. at 1113 Murphy Hall.

**Study List**

A study list is the record of courses in which a student is enrolled for the term. At 11:59 p.m. on Friday of the second week of instruction, the study list of enrolled courses becomes official and all wait lists are eliminated. Students should verify their study list through MyUCLA after each enrollment transaction. Students are responsible for all courses and the grading basis as listed on MyUCLA, and cannot receive credit for courses not listed.

After Friday of the second week, most changes to the official study list can be made with a fee through MyUCLA. Some changes require an Enrollment Petition along with approval signatures.

See study list for deadlines and complete instructions.
Errors or omissions should be corrected before the College or school deadlines for changes by petition. Unapproved withdrawal from or neglect of a course entered on the study list results in a failing grade.

Wait List

Some departments establish wait lists for classes that are full. If an enrolled student drops the class, that seat is filled by a student on the wait list. Students can check enrollment status through MyUCLA. Position on a wait list does not indicate enrollment. Students on a wait list should not assume they will be added to a class.

Wait lists are maintained through Friday of the second week of instruction unless a department deletes them earlier.

Full-Time Graduate Program

Three courses (or 12 units) per term are considered the normal enrollment for graduate students, and are required for students not in doctoral candidacy to be counted for full-time standing in UCLA official enrollment records. Therefore, students are directed by their departments to enroll full time whenever possible.

Throughout their appointments, teaching assistants (TAs) and graduate student researchers (GSRs) are required to be registered and enrolled in at least 12 units. TAs or GSRs terminate their appointments if they take a leave of absence, withdraw, or use a filing fee. Course 375 for TAs, and individual study at the 500 level for GSRs, may be counted toward the 12-unit load.

Graduate students holding fellowships must be enrolled in at least 12 units, both before and after advancement to candidacy. The 12-unit minimum required per term may include, among others, the 500 series (individual study or research).

Veterans are required to make normal progress toward the degree as indicated by the major department. Information on Department of Veterans Affairs regulations is available from the veterans benefits coordinator, 1113 Murphy Hall.

Continuous Registration Policy

Graduate students must be either registered and enrolled or on an official leave of absence every term until the degree is awarded. As an exception, certain graduate students may be eligible to pay the filing fee. Failure to register, have filing fee status, or be on an official leave of absence for any academic term (fall, winter, or spring quarter) constitutes withdrawal from UCLA.

Registration in the Final Term

If students are completing courses; using faculty time, library facilities, laboratories, or other UCLA resources; or receiving UCLA funds, they are required to register in the final term in which they expect to receive their degree.

When the award of a degree is expected at the end of a given term, but special circumstances (not involving preparation of the manuscript) over which a student has no control prevent the completion of all requirements before the first day of instruction in the next term, a student may petition for a waiver of registration for that term. Such petitions must be accompanied by a letter from the graduate faculty adviser or department chair elaborating the exceptional circumstances.

Immunization Requirements

UCLA requires that all incoming students be vaccinated against or show immunity to multiple infectious diseases consistent with guidelines of the American College Health Association, California Department of Public Health, and U.S. Centers for Disease Control and Prevention (CDC). These requirements help protect the health of students and the entire campus community. Students submit their immunization history to the Ashe secure patient portal. See immunization requirements for more information.

Health Assessment and Evaluation

Incoming students enrolling in the school of dentistry, medicine, or nursing—or the Social Welfare Department—must meet specific requirements related to their professional health-care program. Information is available from the Ashe Center. For specific questions, contact the individual department.

Financial Support

Fellowships and Financial Services
1228 Murphy Hall
310-825-1025
Office e-mail

As a major center for graduate study, UCLA offers its qualified graduate students substantial support through several types of financial assistance.

Information on available funding for entering (and re-entering) students is included in the online graduate admission application. Continuing graduate students should complete the online fellowship application. Completed fellowship applications must be returned to the home department by the published deadlines. Some departments have earlier
deadlines; see Graduate Division continuing student funding for details.

The Graduate Division website includes a financial support section for entering students and one for continuing students. Both describe the full range of financial assistance available. Students should contact their department for more detailed information.

**Fellowships**

UCLA administers several awards on the basis of scholarly achievement. Most awards are available in open competition, though some are restricted to new students or to specific departments. Some fellowship and scholarship awards are made from university funds; others are made from endowment funds held in trust by UCLA and given by interested friends and alumni. Still others come from annual donations by educational foundations, industry, government, and individual benefactors.

Most fellowship, traineeship, and grant awards are for one academic year (three terms). Fellowships and grants offer stipends in varying amounts for qualified students. Nonresident tuition fellowships cover nonresident supplemental tuition (NRST), for periods of one to three terms, of selected graduate students who are not California residents.

**Assistantships**

Academic apprenticeships train qualified students for careers in teaching and research, and compensate them for their services. Teaching assistantships offer experience in teaching undergraduates, with faculty supervision. Graduate student researcher appointments give students experience working on faculty-supervised research projects. For more information, see working at UCLA.

**Awards Based on Financial Need**

To apply for aid based on financial need, students must complete the online Free Application for Federal Student Aid (FAFSA) or California Dream Act application by the priority filing deadline (March 2). Some awards, such as university grants, are subject to funding availability. Financial aid applicants should make sure that any requested documentation is submitted to Financial Aid and Scholarships as soon as possible.

Students who need financial aid for summer session courses must submit a summer financial aid application in addition to the FAFSA. Summer applications are available on MyUCLA (under the Finances and Jobs tab) beginning April 1, and should be submitted by April 30 for on-time consideration.

Financial aid is also available to UCLA students enrolled in summer travel, summer institutes, and UC cross-campus summer programs. See Financial Aid and Scholarships. Financial aid awards include work-study and low-interest loans. Students are usually awarded a financial aid package that is a combination of these forms of assistance. More information is available from Financial Aid and Scholarships, A129J Murphy Hall.

**Degree Requirements**

The following information is for prospective applicants and those outside UCLA who are interested in the basic structure of UCLA graduate degree requirements. It is not meant to be comprehensive or to serve as a primary resource for continuing students. Official, specific degree requirements, including language requirements, are detailed on program requirements for UCLA graduate degrees. Detailed information and general policies—many of which emanate from the Academic Senate and its Graduate Council—regarding completion of degree requirements, master’s and doctoral committees, examinations, and foreign language requirements are published in Standards and Procedures for Graduate Study at UCLA. General regulations concerning graduate courses, standards of scholarship, disqualification,
appeal, leave of absence, normal progress toward degree, withdrawal, and other matters also are included.

Master’s and Doctoral Study
Graduate students earn a master’s or doctorate degree by distinguished achievement in advanced study and research. In addition to coursework, there are various means of evaluating achievement in study, including qualifying examinations, capstones, and various kinds of laboratory and field work. Achievement in research is primarily assessed through evaluation of the master’s thesis or doctoral dissertation. In addition to advanced study and research, professional master’s and doctoral programs also may include professional training. This training may take the form of fieldwork, internships, or projects, and may lead to professional licensure.

University Minimum Standards
The requirements described here for master’s and doctorate degrees are minimum standards set by the University of California and UCLA. Individual schools or departments may set higher standards and may require additional courses and examinations for their master’s degrees. Each department also sets additional requirements for doctorate degrees according to the demands of the field of study. See program requirements for UCLA graduate degrees and the departmental graduate adviser for details. Policies and regulations are outlined in Standards and Procedures for Graduate Study at UCLA.

Academic Residence
For the master’s degree, the minimum residence requirement is one year (three academic terms) of registration in graduate standing at the University of California, including at least two academic terms at UCLA.

For the doctorate degree, the minimum residence requirement is two years (six academic terms) of registration in graduate standing at the University of California, including one year (usually the second) in continuous residence at UCLA. If students earned a master’s degree at UCLA, one year (three academic terms) of this requirement will have been met. In most cases a longer period of residence is necessary, and from three to five years is generally considered optimal.

Academic residence for both degrees is established by successfully completing a minimum of one graduate or upper-division course (4 units) during a term.

Students may earn one term of residence for summer study in either of these ways: by enrolling in two six-week UCLA summer sessions, taking at least 2 units of upper-division

and/or graduate work in each session; or enrolling in one eight-week session, taking at least 4 units. Residence earned through summer enrollment is limited to one third of the degree requirements.

To maintain satisfactory progress toward the degree, UCLA requires at least a 3.0 (B) grade-point average in all courses taken in graduate standing at the University of California, and in all courses applied toward a graduate degree.

Foreign Language Requirements
Foreign language requirements are determined by individual departments and programs. Many departments require graduate degree candidates to demonstrate proficiency in one or more foreign languages, so that they can acquire broad knowledge in their field of study and keep abreast of foreign developments in the field.

If their program has a language requirement, students are urged to fulfill it either before they begin graduate study or as early as possible in their graduate career. If the department requires two or more foreign languages, students must complete at least one before the University oral qualifying examination (unless, as is most common, the department requires that both be completed before the examination). All foreign language requirements must be satisfied before advancement to candidacy.

Some departments allow students to fulfill language requirements either by passing departmental examinations or by completing coursework in a foreign language. Certain departments may require additional languages, special competence, or other special procedures. In some departments, English satisfies the foreign language requirement if it is not the native language.

For more details on foreign language requirements, see program requirements for UCLA graduate degrees.

Changing Majors
Continuing graduate students may petition for a change of major after discussing plans with the new department. The Graduate Petition for Major/Classification Change is filed with Graduate Division Academic Services, 1255 Murphy Hall. While there is no deadline for this petition, it should be submitted before the end of the tenth week of instruction for changes in the current quarter. Students should contact their department about any deadlines before completing the petition.
Program of Study and Scholarship

Master’s Degree

At least nine graduate and upper-division courses (or any number of fractional courses totaling 36 units) must be completed in graduate standing; at least five of the nine (20 units) must be graduate-level courses. These unit requirements represent the UCLA minimum standard. Many master’s degree programs have higher unit requirements.

UCLA offers master’s degrees under two plans: Plan I, the Master’s Thesis; and Plan II, the Master’s Capstone. Some departments offer both plans, and students must consult with their department to determine the plan for meeting their degree requirements. UCLA minimum requirements are the same under either plan.

Plan I: Master’s Thesis

Every master’s degree thesis plan requires the completion of an approved thesis that demonstrates the student’s ability to perform original, independent research.

Plan II: Master’s Capstone

Following advancement to candidacy, students under Plan II must pass an individual or group capstone project or comprehensive examination. Information concerning this project or examination and its format (which may be a recital, exhibition, project portfolio, etc.) is available from the department.

Doctorate Degree

Doctoral programs are individualized and permit a high degree of specialization. UCLA does not specify course requirements for doctoral programs. Individual programs set their own requirements, which may include specific courses, and these must be completed before students take the University oral qualifying examination. Students determine their course of study in consultation with a graduate faculty adviser until the doctoral committee is appointed.

Doctoral Examinations before Advancement to Candidacy

Prior to advancement to candidacy, doctoral candidates fulfill the coursework, teaching, and/or examinations required by the major department or program. They are supervised during this period by a departmental faculty adviser and/or departmental guidance committee. This committee administers a departmental written and, in some cases, oral examination (not to be confused with the University oral qualifying examination) after students complete the recommended or required work. Once all departmental requirements are met, the department chair consults with the student and then nominates a doctoral committee. All students are required to successfully complete a written qualifying examination and the University oral qualifying examination before advancement to doctoral candidacy.

University Oral Qualifying Examination

The doctoral committee, consisting of at least four faculty members nominated by the department, is appointed by the dean of the Graduate Division (consult Standards and Procedures for Graduate Study at UCLA and minimum standards for doctoral committee constitution for details on committee membership). To determine qualifications for advancement to candidacy, the committee administers the University oral qualifying examination and, at its option, a separate written examination.

Doctoral Dissertation

Every doctorate degree program requires completion of an approved dissertation that demonstrates the student’s ability to perform original, independent research; and constitutes a distinct contribution to knowledge in the principal field of study.
Academic Policies

Students at UCLA are responsible for understanding the policies and regulations established by the Academic Senate. Should any variations exist between explanations in this catalog and regulations in the Manual of the Academic Senate, the manual prevails in all cases.

Academic Terms

Undergraduate programs and most graduate programs at UCLA use the quarter system for academic terms, credit units, and registration fees. An academic quarter term is 10 weeks of instruction, and there are 146 days of instruction in an academic year. Class credit is accumulated in quarter units (see below). Registration fees are due each quarter. For details on academic dates and deadlines, see the Registrar’s term calendar. For fees, see the Registrar’s fees web page.

The School of Law and Geffen School of Medicine use the semester system.

Language of Instruction

Courses at UCLA are taught in the English language, unless otherwise noted in the course description (for example, foreign language courses).

Academic Credit

Academic work at UCLA is measured by units of credit, which are used to evaluate the amount of time a student has devoted to a particular subject and to determine a student’s class level.

Units of Credit

Most UCLA courses are assigned a unit value. One unit represents three hours of work per week per term by the student, including both class attendance and preparation.

Class Levels

Undergraduate Student

Undergraduate class level is based on completed and in-progress units, not years attended.

<table>
<thead>
<tr>
<th>Class Designation</th>
<th>Units Completed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Freshman (UFR)</td>
<td>0–44.9</td>
</tr>
<tr>
<td>Sophomore (USO)</td>
<td>45–89.9</td>
</tr>
<tr>
<td>Junior (UJR)</td>
<td>90–134.9</td>
</tr>
<tr>
<td>Senior (USR)</td>
<td>135 or more</td>
</tr>
</tbody>
</table>

Graduate Student

Graduate class level is based on the degree objective, whether or not students are advanced to candidacy for a doctorate, and/or completed units.

<table>
<thead>
<tr>
<th>Class Designation</th>
<th>Units Completed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Master (MA/MS) (GMT)</td>
<td>Master’s degree objective</td>
</tr>
<tr>
<td>Professional Master (GPM)</td>
<td>--</td>
</tr>
<tr>
<td>Doctorate 1 (GD1)</td>
<td>Not advanced to candidacy</td>
</tr>
<tr>
<td>Doctorate 2 (GD2)</td>
<td>Advanced to candidacy</td>
</tr>
<tr>
<td>Professional School (PF)</td>
<td>--</td>
</tr>
<tr>
<td>Professional School (PF2)</td>
<td>Second year (Law: 30-55.9)</td>
</tr>
<tr>
<td>Professional School (PF3)</td>
<td>Third year (Law: 56 or more)</td>
</tr>
</tbody>
</table>

Repetition of Courses

Certain courses, as noted in their course descriptions, may be repeated for credit. Other courses taken at UCLA (except UCLA Extension) may be repeated only according to the following guidelines:

1. To improve the grade-point average (GPA), students may repeat only those courses in which they receive a grade of C– or lower; NP or U grades may be
repeated to gain unit credit. Courses in which a letter grade is received may not be repeated on a P/NP or S/U basis. Courses originally taken on a P/NP or S/U basis may be repeated on the same basis or for a letter grade.

2. Repetition of a course more than once requires the approval of the College, school, or dean of the Graduate Division, and is granted only under extraordinary circumstances.

3. Degree credit for a course is given only once, but the grade assigned each time the course is taken is permanently recorded on the transcript.

4. For undergraduates who repeat a total of 16 or fewer units, only the most recently earned letter grades and grade points are computed in the GPA. After repeating 16 units, however, the GPA is based on all letter grades assigned and total units attempted.

5. Certain programs may place additional restrictions on the repetition of courses required for those programs.

6. For graduate students, all courses in which a letter grade is given, including repeated courses, are used in computing the GPA.

Credit for Upper-Division Tutorials

Credit for upper-division tutorial courses numbered 195 through 199 in a single term is limited to a maximum of 8 units. Subject to regulations governing P/NP grades, students may take these courses on a P/NP or letter-grade basis, but the total number of units allowed in upper-division tutorial courses for a letter grade is 32.

To enroll in an upper-division tutorial course, students must have advanced junior standing and at least a 3.0 GPA in the major field, or must have senior standing. Students who have an outstanding Incomplete (I) grade in an upper-division tutorial course may not enroll in another upper-division tutorial course until the I grade has been removed. On the advice of the instructor and chair, the dean of the College or school may authorize exceptions to the limitations listed. Departments may impose additional limitations on upper-division tutorial courses.

Credit by Examination

Students with high scholastic standing may earn credit for regular UCLA courses by taking examinations rather than enrolling in the courses. This is accomplished by establishing, with a UCLA faculty member, an individual plan of study that may include oral and written work in addition to other requirements. To be eligible, undergraduate students must have completed a minimum of 12 units at UCLA. Graduate students must be registered at the time of the examination and are limited to a maximum of three courses taken in this manner.

The results of these courses are entered on the record in the same way as UC transfer credit, and grade points are assigned. Graduate credit earned by examination may be applied to minimum course requirements for master’s degrees but cannot apply to academic residence requirements for master’s or doctorate degrees.

Students need approval from the instructor; the department; and the College, school, or dean of the Graduate Division, from whom petitions for credit by examination (with fee) are available.

Grades

The work of all students at UCLA is reported in grades. Instructors are required to assign a final grade for each student enrolled in a class.

Undergraduate Grades

The following grades are used to report the quality of undergraduate student work at UCLA:

- A+ Extraordinary
- A Superior
- B Good
- C Fair
- D Poor
- F Fail
- P Passed (achievement at grade C level or better)
- NP Not Passed
- I Incomplete
- IP In Progress
- DR Deferred Report

Grades A, B, C, and D may be modified by a plus (+) or minus (−) suffix. Grades A, B, C, and P denote satisfactory progress toward the degree. A grade of D may be applied toward degrees unless otherwise prohibited by program requirements. However, courses in which a grade of D is received must be offset by higher grades in the same term for students to remain in good academic standing. A grade of F yields no unit or course credit.
Graduate Grades

The following grades are used to report the quality of graduate student work at UCLA:

- **A** Superior Achievement
- **B** Satisfactorily demonstrated potentiality for professional achievement in field of study
- **C** Passed the course but did not do work indicative of potentiality for professional achievement in field of study
- **F** Fail
- **S** Satisfactory (achievement at grade B level or better)
- **U** Unsatisfactory
- **I** Incomplete
- **IP** In Progress
- **DR** Deferred Report

The grades A, B, and C may be modified by a plus (+) or minus (−) suffix. The grades A, B, and S denote satisfactory progress toward the degree. A grade of C may be applied toward graduate degrees unless otherwise prohibited by the program requirements. However, courses in which a grade of C is received must be offset by higher grades in the same term for students to remain in good academic standing. A grade of F yields no unit or course credit.

The schools of dentistry, law, and medicine use their own grading codes. Students interested in dentistry, law, or medicine programs should contact the appropriate school for more information.

Grade Points

Grade points per unit are assigned by the Registrar as follows:

<table>
<thead>
<tr>
<th>Grade</th>
<th>Grade Points</th>
<th>Grade</th>
<th>Grade Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>A+</td>
<td>4.0</td>
<td>C−</td>
<td>1.7</td>
</tr>
<tr>
<td>A</td>
<td>4.0</td>
<td>D+</td>
<td>1.3</td>
</tr>
<tr>
<td>A−</td>
<td>3.7</td>
<td>D</td>
<td>1.0</td>
</tr>
<tr>
<td>B+</td>
<td>3.3</td>
<td>D−</td>
<td>0.7</td>
</tr>
<tr>
<td>B</td>
<td>3.0</td>
<td>F</td>
<td>0.0</td>
</tr>
<tr>
<td>B−</td>
<td>2.7</td>
<td>NP</td>
<td>0.0</td>
</tr>
<tr>
<td>C+</td>
<td>2.3</td>
<td>U</td>
<td>0.0</td>
</tr>
<tr>
<td>C</td>
<td>2.0</td>
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</tbody>
</table>

As indicated, a plus (+) or minus (−) suffix added to a grade raises or lowers the grade-point value, except in the case of A+, which carries the same number of grade points as the A grade. Courses in which students receive a grade of P or S may count toward satisfaction of degree requirements, but these grades, as well as DR, I, IP, and NR, are disregarded in determining the grade-point average. (If a grade of I is later removed and a letter grade assigned, units and grade points are included in subsequent GPAs.) NR indicates that no grade was received from the instructor.

Grade-Point Average

The grade-point average (GPA) is determined by dividing the number of grade points earned by the number of units attempted. The total grade points earned for a course equals the number of grade points assigned times the number of course units. For example, if a student takes three 4-unit courses and receives grades of A−, B−, and C+, then the GPA for the term equals the total grade points (34.8) divided by the total course units (12); the GPA is 2.9. For satisfactory standing, undergraduate students must maintain a 2.0 (C) GPA and graduate students a 3.0 (B) GPA in all courses taken at any UC campus (except UCLA Extension).

Only grades earned in regular session or summer sessions at any UC campus—and grades earned by undergraduate students in UCLA Extension courses prefixed by XLC—are computed in the UCLA grade-point average. Grades earned at another institution or in UCLA Extension courses other than those prefixed by XLC do not affect the GPA.

Other schools and agencies may calculate GPAs differently from UCLA when evaluating records for admission to graduate and professional school programs. Students should contact those entities about such policies.

Passed/Not Passed Grades

Undergraduate students in good standing who are enrolled in at least 12 units (14 in the Henry Samueli School of Engineering and Applied Science) may take certain courses on a Passed/Not Passed (P/NP) basis.

The grade P is assigned for a letter grade of C or better. Units earned this way count toward degree requirements but do not affect the GPA. Students receive neither units nor course credit for a grade of NP.
Students may enroll in one course each term on a P/NP basis (two courses if they have not elected the P/NP option in the preceding term). Their department or school may require that they take some or all courses in their major for a letter grade. Certain other courses or programs may also be exempt from the P/NP option; contact the College or school for details.

Students may make changes to or from P/NP grading through the sixth week of instruction using MyUCLA.

**Satisfactory/Unsatisfactory Grades**

Graduate students in good standing (minimum 3.0 GPA) may enroll for Satisfactory/Unsatisfactory (S/U) grading in one graduate or upper-division course outside the major field each term, in addition to any courses offered only on an S/U grading basis within the major. The grade S is assigned for a letter grade of B or better, but units earned in this manner are not counted in computing the GPA. Students receive neither units nor degree credit for a grade of U. They may not elect the S/U option for summer session courses without an approved petition. Courses taken on an S/U basis outside the major, and 500-series courses within the major, are applicable toward degree and/or academic residence requirements if so approved. Interdepartmental majors may not apply S/U courses to degree requirements, except for 500-series courses.

Students may make changes to or from S/U grading through the tenth week of instruction using MyUCLA.

**Incomplete Grades**

Once a grade of Incomplete (I) is assigned, it remains on the transcript along with the passing grade students may later receive for the course. The instructor may assign the grade I when work is of passing quality but is incomplete for a good cause (such as illness or other serious problem). It is the student’s responsibility to discuss with the instructor the possibility of receiving an Incomplete as opposed to a nonpassing grade.

If a grade of I is assigned, students may receive unit credit and grade points by satisfactorily completing the coursework as specified by the instructor. Students should not re-enroll in the course; if they do, it is recorded twice on the transcript. If the work is not completed by the end of the next full term in residence, the I lapses to an F, NP, or U as appropriate. For undergraduate students, the College or school may extend the deadline in unusual cases.

**In Progress Grades**

For certain courses extending over more than one term, evaluation of student performance is deferred until the end of the final term of the course. Provisional grades of In Progress (IP) are assigned in the intervening term(s) and are replaced with the final grade when students complete the full sequence. The College or school faculty, or the Graduate Division, determines credit if students do not complete the full sequence and petition for partial credit.

**Deferred Report Grades**

Students may receive a grade of Deferred Report (DR) when the instructor believes their work to be complete but cannot assign a grade because of disciplinary proceedings or other problems. If students are given a grade of DR, the Office of the Dean of Students assists them in resolving the problem. For graduate students, the dean of the Graduate Division sets a deadline by which the DR lapses to an F if the problem is not resolved and a grade assigned. The DR is changed to a grade, or perhaps to an Incomplete, when the instructor provides written confirmation that the situation is resolved. The DR is not included in determining the grade-point average.

**Correction of Grades**

All grades except DR, I, and IP are final when filed by the instructor in the end-of-term course report. Thereafter, a grade change may be made only in case of a clerical or procedural error or other unusual circumstances. No grade may be revised by re-examination or, with the exception of the I and IP grades, by completing additional work. All grade changes are recorded on the transcript.

Students who are dissatisfied with a grade may request a review of their work with their instructor and an explanation of the grade assigned. See more details and procedures for appealing grades under Grading Regulations in Appendix A.

**Absence and Readmission**

To be registered for a term, students must enroll in courses and pay fees according to deadlines specified in the Registrar’s term calendar. Students who do not register are subject to the following policies on absence and readmission.

Students who register and subsequently discontinue coursework or stop payment on registration fees checks—without an approved petition for withdrawal, leave of
absence, or cancellation—receive grades of F, NP, or U, as appropriate, for all courses in which they are enrolled for that term. A fine is assessed if any check for registration fees payment is returned by a bank for stopped payment, insufficient funds, or any other reason. No fees are refunded, and future registration privileges may be curtailed or revoked.

Cancellation
Before the first day of classes, students may cancel registration by completing and submitting a Cancellation of Registration form, or faxing written notice to 310-206-4520. Refund is as follows: fees paid by new undergraduate and Dentistry students are refunded except for the nonrefundable acceptance of admission fee; for new graduate, undergraduate, continuing, and re-entering students, a service fee is deducted from the amount of fees paid.

Graduate students who cancel their registration and do not apply for a formal leave of absence must file for readmission to return to UCLA.

Withdrawal
Withdrawal from UCLA means discontinuing attendance in all courses in which the student enrolled. Students who withdraw during a term must file a Withdrawal Notice.

When students officially withdraw, a percentage of the term fees may be refunded depending on the date the withdrawal form is filed. See the Registrar’s withdrawal web page for policy details and specific refund dates.

The UCSHIP fee is nonrefundable in most cases. Contact the Arthur Ashe Student Health and Wellness Center insurance office for more information.

Students may withdraw only if they have not taken any final examinations or otherwise completed the work in any classes. For undergraduates, one withdrawal places no restriction on readmission or continuation if they started the term in good academic standing. If they withdraw after one or more previous withdrawals or while in academic difficulty, a restriction may be placed on their continuance in undergraduate standing. Before withdrawing, they are urged to consult with faculty, department, or College or school advisers to consider the full implications of this action.

Undergraduates may also withdraw from a term retroactively, provided no final examinations have been taken and no coursework has been completed. No withdrawals are accepted once they have officially graduated from UCLA.

Undergraduate One-Term Absence
Undergraduate students who complete a term (fall, winter, or spring quarter) and do not register the following term may return to UCLA the subsequent term as a continuing student, and be eligible to register and enroll in advance.

Students on a one-term absence who plan to attend another institution—including UCLA Extension—should discuss plans with their College or school counselor before enrolling elsewhere. On returning to UCLA, students must have an official transcript sent from the institution directly to UCLA Undergraduate Admission to have coursework evaluated.

Planned Academic Leave (PAL) for International Travel
Students who plan to participate in a study-abroad program sponsored by an institution other than the University of California are required to take a planned academic leave of absence (PAL) from UCLA. After they are accepted into a program, students must register the program with the UCLA International Education Office (IEO), B300 Murphy Hall. Registering the program also generates the student application for the PAL.

See IEO non-UC programs for program and registration requirements.

Students returning from an approved PAL for participation in a registered non-UC study abroad program are not required to seek readmission, but must provide official transcripts for coursework evaluation.

Undergraduate Readmission
To return to UCLA after an absence of more than one term, students—except for those on PAL for non-UC study abroad—must complete an Undergraduate Readmission
Application and file it with the Registrar’s Office in accordance with published deadlines. A nonrefundable fee applies.

Students must submit official transcripts from all institutions (including UCLA Extension) and a completed Statement of Legal Residence with readmission applications. Coursework is evaluated when official transcripts are received. The paper records of nonregistered students, including transcripts submitted for transfer credit, are retained by the Registrar’s Office for five academic years after the last registered term.

Students who have not registered for five years must resubmit official transcripts of all work completed outside UCLA. Readmission is generally approved if students were in good academic standing (2.0 GPA) when they left UCLA, if coursework completed elsewhere in the interim is satisfactory, and if readmission applications are filed on time. The College or school may have other regulations. Contact the readmission clerk for more information at 310-825-1091, option 6.

**Readmission Deadlines**

<table>
<thead>
<tr>
<th>Quarter</th>
<th>Deadline</th>
</tr>
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<tbody>
<tr>
<td>Fall Quarter</td>
<td>August 15</td>
</tr>
<tr>
<td>Winter Quarter</td>
<td>November 25</td>
</tr>
<tr>
<td>Spring Quarter</td>
<td>February 25</td>
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</table>

**Graduate Student Continuous Registration Policy**

Graduate students must be either registered and enrolled or on an official leave of absence every term until their degrees are awarded. As an exception, certain graduate students may be eligible to pay the filing fee. Failure to register, have filing fee status, or be on an official leave of absence for any term (fall, winter, or spring quarter) constitutes withdrawal from UCLA.

**Graduate Leave of Absence**

Continuing graduate students in good standing (3.0 GPA or above) who have completed at least one term of UCLA graduate work may, with the support of their department and approval of the Graduate Division, be eligible for leaves of absence. Graduate students are allowed three quarters of official leave of absence. See the Leave of Absence Request web page; for filing deadlines, see the Registrar’s term calendar.

Federal policy governing students on F-1 and J-1 visas restricts leaves of absence to certain conditions. Therefore, the Dashew Center for International Students and Scholars, in consultation with the Graduate Division, individually evaluates each international graduate student request for a leave of absence to determine that it meets federal (and UCLA) eligibility criteria.

Students on approved leave of absence are not permitted to use faculty time or make use of UCLA facilities for more than 12 hours since their last registration, and are not eligible for apprentice personnel employment or other services normally available to registered students. There is no need to apply for readmission, since the approved leave is for readmission to a specific term. The Registrar’s Office notifies students about registration for the returning term.

Research doctoral students who are new parents or who are confronted with extraordinary parenting demands should consult Standards and Procedures for Graduate Study at UCLA regarding Graduate Council policy requiring program accommodations for them.

**In Absentia Registration**

Academic and professional graduate students who conduct research or engage in approved degree program-related activities outside California may be eligible for in absentia registration. Students registered in absentia pay 15 percent of tuition and the student services fee, but pay the full amounts of other mandatory fees such as health insurance and nonresident supplemental tuition (if applicable). In absentia registration and fee reductions may be used for a maximum of six quarters or four semesters for academic doctoral students, and up to three quarters or two semesters for master’s and professional graduate students. See the In Absentia Registration Petition web page.

**Graduate Student Readmission**

Students who are granted a formal leave of absence do not have to apply for readmission if they resume their graduate work in accordance with the terms of the leave. All other continuing graduate students who fail to register for any regular session, or who fail to complete a term through cancellation or withdrawal, must apply for readmission.

Students who have registered at any time as a graduate student at UCLA and return after an absence (except a formal leave of absence) must file an Application for Graduate Admission. Payment of the nonrefundable application fee may be made by credit card only. Transcripts of all academic work completed since registration at UCLA as a graduate student must also be submitted.

**Transcripts and Records**

The transcript is the complete record of a student’s academic work at UCLA. The Registrar prepares, maintains, and permanently retains this record. Additional records may include financial and personal student information.
Transcripts

The transcript reflects all undergraduate and graduate work completed in UCLA regular and summer sessions. It lists chronologically courses, units, grades, cumulative GPA, transfer credits, and total units.

Official UCLA paper transcripts are printed on security paper to safeguard against unauthorized duplication, alteration, and misrepresentation. The paper has a multicolor security background design and a border bearing the words University of California, Los Angeles. Authentication details are located in the lower right-hand corner of the transcript, and the transcript legend appears on the reverse of the document. Transcripts are issued in blue envelopes marked Official Transcripts Enclosed.

Official UCLA electronic PDF transcripts contain a background design, identifying border text, authentication details, and legend. The secure file is sent with a cover page that includes UCLA, student, and recipient information.

Two types of official UCLA transcript—academic and verification—are designed to meet specific needs. Both can be ordered through MyUCLA, as can an unofficial (student copy) academic transcript.

Academic Transcript

The academic transcript is a student’s complete academic record, including a list of courses taken, transfer credit, units, grades, grade-point average (GPA), earned UCLA degrees, and in-progress term information. In-progress information includes a list of courses in which a student enrolled during the term the transcript was ordered, and other in-progress information such as a change in major or removal of an I grade.

Grades for completed terms are processed immediately following the conclusion of final examinations. Complete academic transcripts are available approximately two weeks after the last day of the term. For graduating students, academic transcripts with the graduation date included are available approximately six weeks after the term ends. Students who need earlier proof of graduation may contact a degree auditor at 1113 Murphy Hall.

The minimum time to process and issue academic transcripts, for both registered and former students, is three working days.

For auto insurance good-student discount purposes, an academic transcript can be attached to the insurance form; or the form can be presented at 1113 Murphy Hall.

Verification Transcript

The verification transcript certifies registration (fee payment), enrollment status, and degrees. This transcript confirms student status only after registration fees have been paid for the term. Verification of student workload is based on actual enrolled units, and does not consider wait-list units or list courses for a term.

Verification of degree can be issued after the degree has been posted to the student record, approximately six weeks after the term ends. If verification is required before the degree is posted, the student may contact a degree auditor at 1113 Murphy Hall.

A study list of 12 or more units for registered undergraduate students, or 8 or more units for registered graduate students, is considered full-time status for enrollment reporting, insurance, intercollegiate athletics, and financial aid purposes.

Third-Party Verifications

UCLA has authorized National Student Clearinghouse to act as its agent for all third-party verifications of student enrollment and degrees, including those for loans and creditors. Approved by the U.S. Department of Education, the Clearinghouse is a national organization that facilitates and expedites student enrollment verifications for creditors and other student service-related agencies. The Clearinghouse abides by all provisions of the Family Educational Rights and Privacy Act (FERPA). Degree verification for the most recent term is available approximately seven weeks after the term ends.

Ordering Transcripts

Continuing students must order official academic and verification transcripts through MyUCLA. Other students may order transcripts through MyUCLA, in person at 1113 Murphy Hall, or by using a Transcript Order form.

Requests are not processed if students have outstanding financial, academic, or administrative obligations (holds) to UCLA. Transcripts of work completed elsewhere must be requested directly from the campus or institution concerned.

More information about ordering transcripts is available on the Registrar’s student records web page, by calling 310-825-1091, or by sending e-mail to the transcripts unit.

For UCLA Extension courses, order transcripts from UCLA Extension online, or by mail at PO Box 24901, Department K, Los Angeles, CA 90024-0901.
Fees and Payment
Most academic and verification transcripts are available at no charge after payment of the document fee.
A fee may be charged for some transcript-related services. For example, forms that must be completed by the Registrar’s Office and envelopes that require official signatures incur a special handling fee. Expedited service—processing within 24 hours (paper) or 30 minutes (PDF)—is available for an additional fee; or transcripts can be faxed for an additional fee. Faxed transcripts are generally not considered official, and confidentiality cannot be guaranteed. For exact fees, see transcript-related fees.

Student Records
Student files of pertinent documents are maintained for up to five years from the admit term. Students may view their records at the Registrar’s Office, 1113 Murphy Hall. A five-day advance notice is required for viewing.

MyUCLA
Through MyUCLA, students can obtain academic, financial, and personal information from their UCLA academic records.

Name or Address Change
Students who wish to change their legal name on official UCLA records should complete a Legal Name Change or Correction form and submit it with documentation supporting the name change to the Registrar’s Office, 1113 Murphy Hall. Students on an F or J visa must provide a current passport bearing the exact same name as the new name. All name changes are recorded on the transcript.
Student address changes should be updated through MyUCLA.

Closure of Student Records
Student records are closed to revisions in enrollment, grading, and academic actions on award of a degree. Students are responsible for requesting review of their record prior to award of their degree. See UCLA Procedure 220.1, Student Grievances Regarding Challenge to Content of Student Records Under the Family Educational Rights and Privacy Act.
Changes requested by an individual after award of a degree are considered by the College or school only under extraordinary circumstances. Supportive documentation is required. On action of the academic dean, a statement of the request for revision and a note of the change will be recorded only in the memoranda section of the transcript.

Degrees
Students must satisfy UC requirements, College or school requirements, and department requirements as described in this catalog.

Undergraduate Degrees
Undergraduate degree requirements are subject to the following degree policies.

Student Responsibility
It is students’ responsibility to keep informed of and to comply with the rules, regulations, and policies affecting their academic standing. Meeting academic deadlines, monitoring the study list for accuracy, completing requisites, and fulfilling degree requirements are all part of their academic duties as students.

Minimum Scholarship
The grades A through C and Passed (P) denote satisfactory progress toward the bachelor’s degree. The grades C–through D– yield unit credit but may not satisfy certain scholarship requirements. Even when they do, they must be offset by grades of C+ or better in other courses. Students must earn at least a 2.0 (C) grade-point average (GPA) in all courses taken at any UC campus. Students who fail to maintain this level may be placed on academic probation or may become subject to dismissal. The College and each school may set additional scholarship requirements.

Academic Probation
Students are placed on probation if their overall or term GPA falls between 1.5 and 1.99. While they are on probation, they may not take any course on a Passed/Not Passed (P/NP) basis. Probation ends at the close of a regular term if students have attained a 2.0 (C) GPA for the term and a cumulative 2.0 (C) GPA in all UC coursework. Students who do not end probation within two terms are subject to dismissal.

Academic Dismissal
Students are subject to dismissal from UCLA under any of the following conditions:
• Their GPA in any one term is lower than 1.5
• They do not earn at least a 2.0 (C) GPA in any term when they are on probation
• They do not end probation within two terms
If students are subject to dismissal, their transcripts carry that notation. Students should make an appointment with their College or school counselor. Depending on the situat-
tion, they are given conditions for continuation or are dismissed from UCLA.

Progress toward the Degree

UCLA is a full-time institution, and it is expected that students complete their undergraduate degree requirements promptly. Normal progress toward graduation in four years is defined as the completion of 45 units per year, or 15 units per term.

Minimum Progress and Expected Cumulative Progress

The College and each school enforce minimum progress regulations. The College also enforces expected cumulative progress regulations. Students may be subject to disqualification for failing to meet minimum progress and expected cumulative progress requirements. See the College and Schools chapter for specific minimum progress, expected cumulative progress, and study list regulations.

Petitions

A petition is a form submitted to explain an exception from any UCLA or UC standard rule or regulation. It is the only way to obtain formal approval from the department, College or school, Registrar, or office with authority over a particular request. Some petitions require a fee.

Some uses of petitions are to change the College, school, or major; take more or fewer units than regulations permit; make changes to the study list after MyUCLA processing ends; or obtain credit by examination. Students may petition for concurrent enrollment, double major, or waiver of scholarship requirements.

Transfer Credit

Every California community college has transfer course agreements that specify which courses will receive transfer credit. These courses are displayed on ASSIST, the statewide transfer information website. Students can get some knowledge of transfer credit from accredited institutions other than the University of California, or California community colleges, by comparing the descriptions of courses taken with those in this catalog.

Once students complete the courses, they must have the other institution send official, sealed transcripts to UCLA Undergraduate Admission, 1147 Murphy Hall, Box 951436, Los Angeles, CA 90095-1436. Transfer students should discuss transfer credit with their College or school and/or department adviser.

Community College/Lower Division Transfer Limitation

Effective for students admitted fall 2017 and later: after completing 105 lower-division quarter units toward the degree at all institutions attended, students are allowed no further unit credit for courses completed at a community college or for lower-division courses completed at any institution outside of the University of California. The University of California does not grant transfer credit for community college or lower-division courses beyond 105 quarter units, but students may still receive subject credit for this coursework to satisfy lower-division requirements. Units earned through Advanced Placement (AP), International Baccalaureate (IB), and/or A-Level examinations are not included in the limitation. Units earned at any UC campus (through extension, summer, cross-campus, UCEAP, Intercampus Visitor Program, and regular academic year enrollment) are not included in the limitation. To convert semester units into quarter units, multiply the semester units by 1.5; for example, 12 semester units x 1.5 = 18 quarter units. To convert quarter units into semester units, multiply the quarter units by .666; for example, 12 quarter units x .666 = 7.99 or 8 semester units.

Summer Session Courses

Summer session grades at any UC campus are computed in the UCLA grade-point average.

UCLA Extension

Students who wish to receive degree credit for work taken through UCLA Extension should take courses that correspond in number to the undergraduate courses offered in regular session. The designation XL or XLC before the number of the Extension course signifies that the course is equivalent to the regular-session course bearing the same number. Grades earned by undergraduate students in the School of the Arts and Architecture, Graduate School of Education and Information Studies, College of Letters and Science, and Herb Alpert School of Music in courses prefixed by XLC are computed in the UCLA grade-point average. No degree credit is given for courses numbered X300 through X499. Concurrent enrollment in Extension and regular session is not permitted.

Degree Checks

Anytime before graduation, a student may request an official degree check. This review of degree progress details requirements that remain to complete the bachelor’s degree. The degree-check process may be different for the College and each school.
The Degree Audit—a computer-generated assessment of all degree requirements and the courses taken to fulfill them—is an essential review tool. It can be viewed and printed through MyUCLA, or ordered at a counseling office. The student should review their Degree Audit with their College, school, or department counselor to ensure that all requirements will be satisfied. Engineering students are encouraged to also consult the school undergraduate degree audit web page.

School of the Arts and Architecture
Office of Student Services, 2200 Broad Art Center

Graduate School of Education and Information Studies
Office of Student Services, 1002 Moore Hall

Henry Samueli School of Engineering and Applied Science
Office of Academic and Student Affairs, 6246 Boelter Hall

College of Letters and Science
Academic Advancement Program, 1209 Campbell Hall
College Academic Counseling, A316 Murphy Hall
College Honors Programs, A311 Murphy Hall
Student Athletics, Morgan Center

Herb Alpert School of Music
Office of Student Affairs, 1642 Schoenberg Music Building

School of Nursing
Student Affairs Office, 2-147 Factor Building

Meyer and Renee Luskin School of Public Affairs
Student Services Office, 3250 Public Affairs Building

School of Theater, Film, and Television
Student Services Office, 103 East Melnitz Building

Graduate Degrees
For graduate degree requirements and procedures, see program requirements for UCLA graduate degrees and Standards and Procedures for Graduate Study at UCLA.

Certificate of Resident Study
International students who must leave UCLA and the U.S. before completing a degree or certificate program may request a Certificate of Resident Study in addition to a formal transcript. The certificate cannot be awarded if the studies involved are covered by a diploma or other certificate. The chair of the major department recommends award of the certificate through a petition to the College, school, or Graduate Division.

To be eligible to receive the certificate, students must have completed a program of at least nine courses with a minimum GPA of 2.0 (2.5 for Graduate Division students) and have satisfactorily completed a research project over a period of nine or more months.

Graduation
The awarding of degrees is the culmination of several steps that begin when students identify the term in which they expect to complete degree requirements.

Undergraduate Students
Approximately nine out of every 10 UCLA undergraduates eventually receive a bachelor’s degree, either from UCLA or from another campus or institution. One-third of all UCLA bachelor’s degree recipients go on to graduate school.

Declaration of Candidacy
To initiate the steps leading to the award of a bachelor’s degree, students must identify the term in which they expect to complete degree requirements, through MyUCLA, by the time they complete 160 units (172 units for engineering students). The identified term must be within the academic year (four quarters) subsequent to the term in which students reach or expect to reach the 160- or 172-unit limit. Once they complete 160 or 172 (or more) units, a fee is assessed each time students identify or change the degree-expected term. Current- or past-term candidates over the unit limit must file a Declaration of Candidacy form with the Registrar’s Office.

Friday of the second week of the term is the last day to declare candidacy for the current term (with fee depending on units completed). Declaration of candidacy after week two incurs a late fee, and may result in a degree-award date for the following term.
Students can verify the **degree-expected term** through MyUCLA. For questions about degree candidacy status, College students may inquire at the Registrar’s Office. Arts and architecture; education and information studies; engineering; music; nursing; public affairs; and theater, film, and television students should contact their school office. A photo ID is required. Declaring candidacy is not a guarantee of graduation.

### In Absentia Graduation

Students who intend to complete degree requirements while nonregistered (those who take a course through UCLA Extension or at another institution, remove an Incomplete grade, and so on) must submit a Request to Graduate In Absentia form to their degree auditor in 1113 Murphy Hall, by the week-two candidacy deadline. Students graduating in absentia are assessed the undergraduate in absentia degree-processing fee, in addition to the declaration of candidacy fee, if they were also not registered in the term immediately prior to their degree-expected term.

### Retroactive Degree and Graduation

Students who do not declare candidacy in the term that final degree requirements are met, or who had pending degree-related issues (such as grade changes, department approval of major courses, or advanced-standing work at other institutions) in the declared term, must submit a Retroactive Degree Request form. If the request is approved, the degree is recorded on the transcript immediately, and the student record is closed to any further revision. The $75 special order diploma fee applies.

### Final Degree Audits and Graduation

Degree auditors are responsible for verifying each candidate’s eligibility for a bachelor’s degree. Degree auditors have information pertaining to a student’s graduation only if that student declared candidacy and completed 160 quarter units (172 units for engineering students). Degree auditors are available in the following offices:

**School of the Arts and Architecture**
- **Office of Student Services**, 2200 Broad Art Center

**Graduate School of Education and Information Studies**
- **Office of Student Services**, 1002 Moore Hall

**Henry Samueli School of Engineering and Applied Science**
- **Office of Academic and Student Affairs**, 6246 Boelter Hall

**College of Letters and Science**
- **Registrar’s Office**, 1113 Murphy Hall

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**Herb Alpert School of Music**
- **Office of Student Affairs**, 1642 Schoenberg Music Building

**School of Nursing**
- **Student Affairs Office**, 2-147 Factor Building

**Meyer and Renee Luskin School of Public Affairs**
- **Student Services Office**, 3250 Public Affairs Building

**School of Theater, Film, and Television**
- **Student Services Office**, 103 East Melnitz Building

During their graduating term, students should inform a degree auditor of grade changes, petitions for substitutions or exemptions, transfer credits, or similar changes that may affect their degree. If graduation eligibility cannot be verified, a degree auditor notifies the student of any outstanding requirements or other degree completion problems.

Student records are closed to revisions in enrollment, grading, and academic actions on award of a degree. Students are responsible for requesting review of their record prior to award of their degree.

A summary of shortages for the bachelor’s degree statement is sent to each current-term candidate who does not satisfy degree requirements that term. Students who receive such notices should contact a degree auditor immediately. If students expect to satisfy degree requirements in a later term, they must change their degree-expected term through MyUCLA or at 1113 Murphy Hall. They may be assessed applicable fees.

Contact degree auditors only for questions about degree audits. Telephone numbers are published on the Registrar’s service directory. Do not contact auditors regarding commencement procedures; see **Commencement**.

### Graduate Students

Candidates for both master’s and doctorate degrees must be advanced to candidacy and complete all degree requirements—including the master’s thesis or capstone, or doctoral dissertation—before the degree is conferred. See the **filing deadlines calendar** for thesis/dissertation filing deadlines. For graduate degree requirements and procedures, see **program requirements for UCLA graduate degrees** and **Standards and Procedures for Graduate Study at UCLA**.

### Degree Date

Degrees are awarded at the end of fall, winter, and spring quarters and at the end of summer session C. School of Law and School of Medicine degrees are normally awarded at the end of fall and spring semesters. See the UCLA **term calendar** for the degree-award date, which is the final day of the term.
Commencement

The College, each school, and the Graduate Division conduct commencement ceremonies for their graduates. Ceremonies feature addresses from distinguished speakers, and recognize candidates who have achieved high academic distinction and honors.

Check with the College, school, or department for eligibility requirements, programs, and time schedules. Commencement information—including the schedule of ceremonies, maps and parking, and updates—is published online. Doctoral hooding ceremony information is also published online.

Privacy

Names of students who request that no public information be released do not appear in commencement ceremony programs. Students may change their privacy status on MyUCLA.

Diplomas

Diplomas for both undergraduate and graduate students are available approximately three months after the degree-award date. After week three of their expected term of graduation, students should provide instructions for obtaining the diploma in person or by mail using the diploma request feature on MyUCLA. To expedite receipt of diplomas, instructions should be given no later than one month after the last day of the degree term. Students may also request diplomas in person at 1113 Murphy Hall or by returning a Diploma Mail Request form.

Name Change

To be reflected on the diploma, a name change must be submitted on a Legal Name Change or Correction form, with supporting documentation, to the Registrar’s Office, 1113 Murphy Hall, by the last day of the degree-expected term. Once the degree is awarded, only a court order will be accepted to make a name change; a replacement diploma fee applies.

Replacement Diploma

If an original diploma is destroyed, a replacement may be ordered by using the diploma request feature on MyUCLA. Students may also order a replacement diploma in person at 1113 Murphy Hall, or by returning a Replacement Diploma Request form. A replacement diploma fee applies. The new diploma bears a reissue date and signatures of current California, UC, and UCLA officials.
College and Schools

The UCLA campus is home to one College and 12 professional schools. Each has its own degree requirements, and each division and school is headed by a dean who has final academic authority. Students enroll in UCLA and in the College or one of the schools described in this chapter.

College of Letters and Science

David C. Schaberg, PhD, Senior Dean and Dean of Humanities
Miguel A. García–Garibay, PhD, Dean of Physical Sciences
Darnell M. Hunt, PhD, Dean of Social Sciences
Tracy L. Johnson, PhD, Dean of Life Sciences
Adriana Galván, PhD, Dean of Undergraduate Education

College of Letters and Science
2300 Murphy Hall
310-825-9009

UCLA is one of the world’s premier universities. At the core of UCLA research programs, graduate training, and undergraduate instruction is the College of Letters and Science. With over 28,340 students and more than 900 faculty members, the College is the largest academic unit in the UC system and the academic heart of UCLA.

The undergraduate programs in the College stress a liberal arts education that brings together perspectives from many fields in a unified approach to learning. Students learn ways that issues are analyzed, questions are posed, and knowledge is organized. After sampling many general subjects, they concentrate on one field or subject and are required to pursue it rigorously and in depth, according to the standards of scholars in the field. When they reach the graduate level, they pose their own questions, analyze academic issues of their own making and, through their research, participate in the creation of knowledge.

Organization of the College

The College of Letters and Science is organized in five divisions, each led by a dean.

Humanities Division

The Humanities Division promotes—through scholarly inquiry and the transmission of ideas—sensitive, imaginative, and rigorous reflection on the human condition. Courses in literature help students understand the enduring power of texts both great and small—from cuneiform to manuscript to hypertext. Studies of nearly 100 foreign languages create a gateway to civilizations that span the globe and five millennia of human history. Philosophers offer training in the fundamental principles of logic and moral reasoning, and linguists—both theoretical and applied—illuminate the physiological, cognitive, and social aspects of human language. Art historians explore with students the forms and media through which humans have sought to express themselves and to challenge and make sense of their worlds. Programs in the humanities teach students to interpret texts with an informed sensitivity, to evaluate ideas critically, to write clearly and effectively about them, and to be able to question and discuss them with their peers.

Life Sciences Division

Faculty members and students in the Life Sciences Division play an essential role in unlocking the basic mechanisms of life at the most fundamental level. The geography of Southern California is conducive to life sciences research, since the diverse region is a natural laboratory for environmental biologists, plant and animal ecologists, and evolutionary biologists. Scientists in microbiology and molecular, cell, and developmental biology study embryo formation, cell signaling, and genetics. Neurochemists, neurophysiologists, psychobiologists, and behavior biologists study the underlying mechanisms of the neural basis of behavior. Physiological scientists examine the structure of muscle, hormonal control of behavior, and environmental conditions, such as weightlessness, that affect bone and muscle structure and function. Cognitive psychologists are concerned with the nature of knowledge—how people learn, remember, associate, and think; and how computers relate to human thought processes.

Physical Sciences Division

Departments in the Physical Sciences Division present the results of human efforts to understand the natural sciences and their physical aspects, including the properties and characteristics of matter and energy; the science of numbers and order; the origin and structure of the universe, solar system, and Earth; and climatic change and its environmental impact. The bases for the physical sciences are the fundamental laws and proof of mathematics, chemistry, and physics. Studies in the physical sciences are experimental, theoretical, observational, and computational. Faculty members and students are interested in such topics as the nature and evolution of the galaxies; ozone depletion; nuclear winter; greenhouse effect; molecular recognition, interactions, design, synthesis, and structure; evolution of life and the continents; computational mathematics and
symbolic logic; superconducting materials; plasma fusion, space plasmas; and high-energy accelerator physics.

Social Sciences Division

Majors in the Social Sciences Division help students make sense of the rapidly changing world around them by giving them the tools and sensibilities to appreciate the complex interplay of individuals, environment, culture, and economy that makes up their social world. They study human and animal evolution, as well as the transformation of human societies from small groups to states. They explore and debate the meaning of cultural, ethnic, and racial identities in historical and contemporary settings. Some majors challenge students to analyze the role of labor, markets, and exchange, as well as the dynamics of political choices, participation, and institutions. Communication, from interpersonal conversation to mass media, and its impact on personal and political behavior are studied in different fields, while the impact of place and the natural environment are examined through geography. Underlying all of these topics is a drive to capture the elusive nature of human behaviors and relationships through direct observation and the questioning of prevailing theories. In addition, students learn exciting and diverse methods of social and environmental analysis, such as archaeology, linguistics, statistics, game theory, remote sensing and imagery, textual analysis, ethnography, geographic information systems, fieldwork, and ecology.

Undergraduate Education Division

The Undergraduate Education Division is a campuswide advocate for undergraduate education, promoting academic success for the diverse undergraduate population at UCLA and ensuring options for all students to engage in a challenging array of educational opportunities, from foundational general education courses to advanced research and capstone projects.

Academic Advancement Program

The Academic Advancement Program (AAP) is a multiracial, multiethnic, and multicultural program that promotes academic excellence through academic counseling, learning sessions, and mentoring. Students are eligible for AAP if their academic profiles and personal backgrounds may impact their experience and their retention and graduation from UCLA.

Center for Community Learning

The Center for Community Learning serves faculty members, undergraduate students, and community partners through academic courses and programs, including credit-bearing internships, service learning courses, community-based research, AmeriCorps programs, and the Astin Scholars Program. It is home to the undergraduate minor in Community Engagement and Social Change.

Center for Educational Assessment

The Center for Educational Assessment (CEA) supplies information and analysis to support planning, program and policy development, and other decision making about undergraduate education at UCLA.

Center for the Advancement of Teaching

The Center for the Advancement of Teaching (CAT) supports undergraduate education by enhancing teaching and learning opportunities. Through grants, programs, and services, CAT promotes the effective use of current and emerging instructional methodologies and technologies.

College Academic Counseling

College Academic Counseling (CAC) advises College undergraduate students on academic regulations and procedures, course selection, preparation for graduate and professional programs, selection of appropriate majors, and the options and alternatives available to enhance a UCLA education. Academic advisers partner with students to support student personal, professional, and intellectual growth.
Honors Programs

Honors Programs offers academic programs and services designed to promote an outstanding honors education, including College Honors, Honors Collegium, Departmental Scholar Program, Individual Majors Program, Honors Scholarships, Honors Research Stipends, and specialized counseling and support services for College honors students.

New Student and Transition Programs

New Student Orientation is the first introduction to UCLA for new students. During the three-day, first-year student sessions—and the one- and two-day transfer student sessions—a unique set of comprehensive and engaging programs is offered to make student transitions to UCLA great ones.

Scholarship Resource Center

The Scholarship Resource Center (SRC) is designed to help students in the search for private scholarships, regardless of financial aid eligibility. The center also houses the Phi Beta Kappa Office.

Transfer Alliance Program

The Transfer Alliance Program (TAP) seeks to strengthen academic ties between UCLA and honors programs in over 45 California community colleges, offering specialized transfer programs for participating students.

Undergraduate Education Initiatives

Undergraduate Education Initiatives are innovative programs designed for undergraduate students that feature best practices in undergraduate education and attract the most distinguished faculty members from all UCLA areas. Programs include UCLA General Education, Fiat Lux Freshman Seminar Program, Cluster Program, Undergraduate Student Initiated Education Program, and Writing II Program.

Undergraduate Research Centers

Undergraduate Research Centers (URC)—one for students in the arts, humanities, social sciences, and behavioral sciences; and one for students in science, engineering, and mathematics—exist as part of a continuing effort by the College to engage undergraduate students in research and creative activities at all levels.

Degrees

The College offers 111 majors leading to bachelor’s, master’s, and doctorate degrees. In addition, the College offers 82 undergraduate minors.

For a complete list of College of Letters and Science degrees, see the Majors and Degrees chapter.

Undergraduate Degree Requirements

Degree programs in the College offer students a variety of intellectual challenges by combining a wide distribution of courses and the opportunity to specialize in one particular field. To this end, students are required to select lower-division courses that furnish general foundations of human knowledge. In upper-division courses, they concentrate on one major field of interest.

As described below, College students must satisfy UC requirements, College requirements, and department requirements for the Bachelor of Arts or Bachelor of Science degree.

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Courses that do not satisfy specific UC, College, or department requirements are referred to as electives and can be used to meet the minimum unit requirement for graduation.

University Requirements

The University of California has two requirements that undergraduate students must satisfy to graduate: Entry-Level Writing or English as a Second Language, and American History and Institutions. Students who do not satisfy the Entry-Level Writing requirement prior to enrollment must pass an approved course or other program prescribed by their UC campus of residence. Only after satisfying the Entry-Level Writing requirement can they take an English composition course for transfer credit after enrolling at
College Requirements

There are eight requirements that must be satisfied for award of a degree.

Unit Requirement

Students must satisfactorily complete for credit a minimum of 180 units for the bachelor’s degree. At least 60 of the 180 units must be upper-division courses numbered 100 through 199. A maximum of 216 units is permitted. Students with Advanced Placement Examination or International Baccalaureate Examination (transfer) credit may exceed the unit maximum by the amount of that credit.

Scholarship Requirement

Students must earn at least a 2.0 (C) grade-point average (GPA) in all courses undertaken at UCLA to receive a bachelor’s degree. Students must also earn a 2.0 GPA in a major and satisfy both the course and scholarship requirements for that major, including preparation for the major. Some majors have additional requirements.

Academic Residence Requirement

Thirty-five of the final 45 units completed for the bachelor’s degree must be earned while in residence at the College. A minimum of 24 upper-division units must be completed in the major while in residence at the College. The academic residence requirements apply to both continuing and transfer students.

Writing Requirement

Students must complete the UC Entry-Level Writing or English as a Second Language (ESL) requirement prior to completing the College writing requirement.

Students admitted to the College are required to complete a two-term writing requirement—Writing I and Writing II. Two courses in English composition are required for graduation. Both courses must be taken for letter grades, and students must receive a C or better grade in each (a C– grade is not acceptable).

Writing I. The Writing I requirement must be satisfied within the first three terms of enrollment by completing English Composition 3, 3D, 3DS, or 3SL with a C or better grade (a C– or Passed grade is not acceptable).

The Writing I requirement may also be satisfied by scoring 4 or 5 on one of the College Board Advanced Placement Examinations in English; a combination of a score of 720 or better on the SAT Reasoning Test, Writing section (last administered in January 2016) and superior performance on the English Composition 3 Proficiency Examination; completing a course equivalent to English Composition 3 with a C or better grade (a C– or Passed grade is not acceptable) taken at another institution; or scoring 5, 6, or 7 on an International Baccalaureate Higher Level Examination.

Students whose native language is not English may need to take English Composition 1A, 1B, and 2I before enrolling in a Writing I course. All courses in the sequence must be passed with a C or better grade (a C– or Passed grade is not acceptable).

Qualifying examination scores and courses are determined by the College Faculty Executive Committee.

Writing II. The Writing II requirement must be satisfied within seven terms of enrollment by completing one course from a list of Writing II courses approved by the College Faculty Executive Committee; see the Registrar’s Writing II requirement web page for details. The course must be completed with a C or better grade (a C– or Passed grade is not acceptable).

Applicable Writing II courses may also fulfill preparation for the major requirements and, if approved for general education (GE) or diversity credit, may fulfill a GE or diversity requirement.

Transfer students with 90 or more units who have completed the Intersegmental General Education Transfer Curriculum (IGETC) will have satisfied the Writing I, Writing II, and reciprocity requirements. No transfer student is admitted to the College without completing, with a C or better grade (a C– grade is not acceptable), a college-level writing course that Undergraduate Admission accepts as equivalent to English Composition 3.

Quantitative Reasoning Requirement

The quantitative reasoning requirement may be satisfied by completing one approved UCLA course (see list below) or an equivalent course within the first seven terms of enrollment. The course must be taken for a letter grade, and students must receive a C or better grade (a C– grade is not acceptable).

The requirement may also be satisfied by achieving an SAT Reasoning Test Mathematics Section score of 600 or better for exams taken January 2016 or earlier, or achieving an SAT Mathematics section score of 620 or better for exams taken March 2016 or later, or an SAT Subject Test in Mathematics score of 550 or better, or an ACT mathematics exam score of 26 or better. Approved UCLA courses and examinations, and qualifying scores, are determined by the College Faculty Executive Committee.
Applicable courses may also fulfill preparation for the major requirements and, if approved for general education (GE) credit, may fulfill a GE requirement.

Transfer students with 90 or more units who have completed the Intersegmental General Education Transfer Curriculum (IGETC) will have satisfied the quantitative reasoning and reciprocity requirements. No transfer student is admitted to the College without completing, with a C or better grade (a C– grade is not acceptable), a college-level quantitative reasoning course that Undergraduate Admission accepts as equivalent to those approved by the College Faculty Executive Committee. Approved courses include

- Biostatistics 100A, 100B
- Life Sciences 20, 30A, 30B, 40
- Mathematics 2, 3A, 31A, 31AL
- Philosophy 31
- Political Science 6, 6R
- Program in Computing 10A, 10B, 10C
- Public Affairs 60
- Statistics 10, 12, 13

Foreign Language Requirement

The foreign language requirement may be satisfied by one of the following methods: completing a college-level foreign language course equivalent to level three or above at UCLA with a C or Passed or better grade; or scoring 3, 4, or 5 on the College Board Advanced Placement (AP) foreign language examination in Chinese, French, German, Italian, Japanese, or Spanish, or scoring 4 or 5 in Latin, thereby earning College credit; or presenting a UCLA foreign language departmental examination score indicating competency through level three. Consult the Schedule of Classes or the appropriate department for times and places of regularly scheduled examinations. Students who wish to demonstrate proficiency in a language taught in a UCLA department that has no scheduled examination should contact the appropriate department to arrange for one. Students who wish to take an examination in a language not taught at UCLA should contact a College counselor.

Transfer students with 90 or more units who have completed the Intersegmental General Education Transfer Curriculum (IGETC) will have satisfied the foreign language and reciprocity requirements.

Courses that may be used to fulfill this requirement are published on the Registrar’s foreign language requirement web page.

Diversity Requirement

The diversity requirement may be satisfied by completing one course from the faculty-approved list of courses. The course must be taken for a letter grade, and students must receive a C or better grade (a C– grade is not acceptable). Applicable courses may also fulfill major, minor, or elective requirements; and if approved for general education (GE) credit, may fulfill a GE requirement. A list of approved courses is available in the Schedule of Classes.

General Education Requirements

General education (GE) is more than a checklist of required courses. It is a program of study that reveals to students the ways that research scholars in the arts, humanities, social sciences, and natural sciences create and evaluate new knowledge; introduces students to the important ideas and themes of human cultures; fosters appreciation for the many perspectives and diverse voices that may be heard in a democratic society; and develops the intellectual skills that give students the dexterity they need to function in a rapidly changing world.

This entails the ability to make critical and logical assessments of information, both traditional and digital; deliver reasoned and persuasive arguments; and identify, acquire, and use the knowledge necessary to solve problems.

Applicable courses may also fulfill major, minor, or elective requirements; and if approved for diversity or writing, may fulfill the diversity requirement and/or Writing II requirement.

Foundations of Knowledge

General education courses are grouped into three foundational areas: Foundations of the Arts and Humanities, Foundations of Society and Culture, and Foundations of Scientific Inquiry.

Ten courses (48 units minimum) are required. GE-approved Writing II courses may fulfill an appropriate foundational area. See the foundational area descriptions below for a breakdown of courses required.

Students who complete a year-long GE cluster series fulfill the Writing II requirement, complete 40 percent of their general education requirements, and receive laboratory/demonstration credit where appropriate.

Courses listed in more than one category can fulfill GE requirements in only one of the categories.

Foundations of the Arts and Humanities. Three 5-unit courses, one from each subgroup:

- Literary and Cultural Analysis
- Philosophical and Linguistic Analysis
- Visual and Performance Arts Analysis and Practice

Courses in this area supply perspectives and intellectual skills necessary to comprehend and think critically about our situation in the world as human beings. In particular, courses furnish the basic means to appreciate and evaluate
the ongoing efforts of humans to explain, translate, and transform their diverse experiences of the world through such media as language, literature, philosophical systems, images, sounds, and performances. Courses introduce students to the historical development and fundamental intellectual and ethical issues associated with the arts and humanities, and may also investigate the complex relations between artistic and humanistic expression and other facets of society and culture.

**Foundations of Society and Culture.** Three 5-unit courses, one from each subgroup and a third course from either subgroup:

- Historical Analysis
- Social Analysis

Courses in this area introduce students to the ways in which humans organize, structure, rationalize, and govern their diverse societies and cultures over time. Courses focus on a particular historical question, societal problem, or topic of political and economic concern in an effort to demonstrate how issues are objectified for study, how data is collected and analyzed, and how new understandings of social phenomena are achieved and evaluated.

**Foundations of Scientific Inquiry.** Four courses, two from each subgroup. One 5-unit course from each subgroup must include either laboratory/demonstration or Writing II credit. For students entering fall quarter 2019 through spring quarter 2021, the laboratory requirement is reduced to one 5-unit course from either subgroup. Other courses in the subgroups may be 4 units:

- Life Sciences
- Physical Sciences

Courses in this area ensure that students gain a fundamental understanding of how scientists formulate and answer questions about the operation of both the physical and biological world. Courses also deal with some of the most important issues, developments, and methodologies in contemporary science, addressing such topics as the origin of the universe, environmental degradation, and the decoding of the human genome. Through lectures, laboratory experiences, writing, and intensive discussions, students consider the important roles played by the laws of physics and chemistry in society, biology, Earth and environmental sciences, and astrophysics and cosmology.

**Foundations Course Lists.** Creating and maintaining a general education curriculum is a dynamic process; consequently, courses are frequently added to the list. For the most current list of approved courses that satisfy the Foundations of Knowledge GE plan, contact an academic adviser or see the Schedule of Classes.
core courses are degree requirements rather than admission requirements, students are advised to fulfill them prior to transfer. The IGETC significantly eases the transfer process, as all GE requirements are fulfilled when students complete the IGETC courses.

Students who are unable to complete one or two IGETC courses prior to transfer may request certification of partial completion of IGETC from their community college. On certification, each of the remaining courses must be completed with a minimum C or Passed or better grade in each. Students who fail to complete the remaining IGETC coursework or who are otherwise not eligible for IGETC or partial IGETC must complete the College GE requirements. Consult with a college adviser regarding GE requirements prior to enrolling in any courses.

### Department Requirements

College of Letters and Science departments generally set two types of requirements that must be satisfied for award of a degree: preparation for the major (lower-division courses) and the major (upper-division courses). Departments also set requirements for minors and specializations.

#### Preparation for the Major

Admission to a major may require completion of a set of courses known as preparation for the major. Some majors admit applicants to premajor status until requisite courses are satisfactorily completed. Students in life sciences majors must complete a set of preparatory courses known as the Life Sciences core curriculum. Each department sets its own preparation for the major and eligibility requirements; see the Curricula and Courses chapter.

#### The Major

A major in the College consists of a group of coordinated upper-division courses and is designated as departmental, interdepartmental, or individual. Each course applied toward the major and preparation for the major must be taken for a letter grade unless otherwise stipulated by the department. Students who have been away from UCLA for several terms should consult with their major department or curriculum adviser concerning the requirements under which they are to graduate.

Each department sets its own major requirements; see the Curricula and Courses chapter.

Departmental Majors. A departmental major consists of a minimum of 36 upper-division units and a maximum of 60 upper-division units. The majors are established and supervised by campus departments.

Interdepartmental Majors. An interdepartmental major consists of a minimum of 48 upper-division units and a maximum of 75 upper-division units, of which no more than 32 units may be coursework in one department. The programs are administered by interdepartmental committees made up of faculty whose membership is determined by research interest, not by departmental affiliation. By cutting across the usual lines of departmental division, a field is studied from the perspectives of different disciplines, and a greater degree of program flexibility is achieved.

Individual Capstone Majors. If students have some unusual but definite academic interest for which no suitable major is offered at UCLA, and have completed at least three terms of work (45 units minimum) at UCLA with a grade-point average of 3.4 or better, they may petition for an individual capstone major. The consent of College Honors Programs and the assistance of a faculty adviser are required. Individual majors must be approved by the vice provost for undergraduate education.

The individual major must consist of at least 48 and no more than 60 upper-division units, a majority of which must be in departments offering a major in the College. A capstone senior thesis of at least 8 but no more than 12 units is required. For details about individual majors, contact Honors Programs, A311 Murphy Hall.

Double Majors. Students in good academic standing and on track to graduate on time may be permitted to have a double major, consisting of majors from two departments within the College. Both majors must be completed within the maximum limit of 216 units, and students must obtain the approval of both departments and the College.

With few exceptions, double majors in the same department are unacceptable. No more than 20 upper-division units may be shared by both majors.

Minors and Specializations

Students may choose to pursue a minor to complement their major program of study. Minors consist of no fewer than seven courses (28 units) and no more than nine courses (36 units). Some minors also have admission requirements.

The Computing specializations are sequences of supplemental courses that enhance work in a major.

See the list of Undergraduate Minors and Specializations in the Majors and Degrees chapter; descriptions are in the Curricula and Courses chapter.

### Policies and Regulations

Degree requirements are subject to policies and regulations, including the following:
**Student Responsibility**

Students should take advantage of academic support resources, but they are ultimately responsible for keeping informed of and complying with the rules, regulations, and policies affecting their academic standing.

**Study List**

The study list is a record of classes that a student is taking during a particular term. The allowable study list load is up to 19 units. After the first term, students may petition to enroll in more than 19 units if they attained at least a 3.0 grade-point average the preceding term in a total program of at least 15 units and have an overall grade-point average of 3.0. First-term transfer students from any other UC campus may carry excess units on the same basis as students who have completed one or more terms at UCLA; however, they are not encouraged to do so.

**Degree Progress**

UCLA is a full-time institution, and it is expected that students complete their undergraduate degree requirements promptly. Normal progress toward graduation in four years is defined as the completion of 45 units per year, or 15 units per term.

The Degree Audit is a record of degree requirements and the courses taken to fulfill them. Students are responsible for monitoring their progress toward the degree. They must read and understand the UCLA General Catalog, and consult regularly with College and department counselors to confirm they are satisfying all program requirements. Department counselors advise students on progress and completion of the major requirements. Academic advisers and counselors in College Academic Counseling, Academic Advancement Program, Honors Programs, and Student Athletics Counseling assist students with College requirements, degree planning, and Degree Audits on request. Students can also view the Degree Audit through MyUCLA.

**Minimum Progress/Expected Cumulative Progress**

During a regular term of enrollment, undergraduate students in the College are required to enroll in a minimum of 13 units. Students are also required to meet cumulative progress unit expectations as outlined in the expected cumulative progress table.

The following courses count toward minimum progress and expected cumulative progress, as well as any other degree requirement, but are exempt from the maximum unit limit of 216:

- Any 19, 88S, 89, 89HC, M97X, 98X, 98XA, and 98XB, 99, 189, 189HC, 190, 193, 194
- Honors Collegium 101A through 101J
- Mathematics 71SL and 72SL
- Science Education 1SL and 10S

**Reduced Fee Programs**

While full-time study is expected and required of students, some students may qualify for part-time study due to compelling reasons of occupation, home and family responsibilities, or health. Under this policy, part-time status is defined as 10 or fewer units per term based on enrolled units at the end of the third week, and is presumed to be of a permanent nature. On approval of part-time status, a reduction of tuition by one half and a reduction of nonresident supplemental tuition by one half are approved.

To be eligible for part-time study, students must provide documentation of occupation, home and family responsibility, or health that prevents them from carrying a full-time study load; as well as documentation of a need for part-time study for a minimum of three consecutive terms. Once approved for part-time study, students must complete two courses of 10 units or less in each of the three consecutive terms. Only under documented extraordinary circumstances is a one-course study list approved. Documentation must specify that a one-course study list is warranted.

Students should obtain a Registrar’s Fee Reduction Request. The application for part-time study must be submitted with accompanying documentation by Friday of the second week of the term. Students approved for part-time study who become enrolled in or receive credit for more than 10 units during a term must pay full fees for that term.

**Declaring a Major**

Students are expected to select a major by the beginning of their junior year. This may be a program of related upper-division courses within a single department (departmental major) or a group of related courses involving a number of departments (interdepartmental major) or, under certain circumstances, a group of courses selected to meet a special need (individual capstone major).

Most entering freshmen are unsure about specific academic goals and request to be admitted to the College as “undeclared.” These students then explore fields of study by taking introductory courses in the physical and life sciences, social sciences, and humanities in search of an area that most excites their interest.

All students with 90 or more units toward a degree are expected to declare a premajor or a major. When they are
ready to do so, students obtain approval from the department or interdepartmental degree committee that governs their intended major.

**Changing a Major**

Students in good academic standing who wish to change their major may petition to do so, provided they can complete the new major within the 216-unit limit and are on track to graduate on time. Petitions must be submitted to and approved by the department or committee in charge of the new major. Admission to certain majors may be closed or restricted. Changes are normally not permitted if students are not in good academic standing or have begun their last term.

Students who fail to attain a grade-point average of 2.0 (C) in preparation for the major or major courses may be denied the privilege of entering or continuing in that major. Some departments may have higher grade-point requirements for their preparation and major courses or other restrictions; consult with the appropriate department regarding minimum standards and eligibility requirements.

**Re-entering Students and Their Majors**

Students returning to UCLA to resume their studies after an absence of several years may find their previous major area of study is no longer available. They must select a current major in which to complete their studies. Consult with an academic adviser for assistance.

**Credit Limitations**

The following credit limitations apply to all undergraduate students enrolled in the College. In many cases, units are not deducted until the final term before graduation. Students with questions should consult with an academic adviser.

Transfer students with credit from other institutions (advanced standing credit) receive a Degree Audit from Undergraduate Admission indicating the transferable units from former institutions. However, the following credit limitations may reduce the total number of transferred units that apply toward the degree in the College. Consult with an adviser in College Academic Counseling about these limitations.

**Advanced Placement Examinations.** Advanced Placement (AP) Examination credit may not be applied toward a degree unless students had less than 36 units of credit at the time of the examination(s). See the College AP table for UCLA course equivalents and credit allowed for GE requirements.

**College Level Examination Program.** Credit earned through the College Level Examination Program (CLEP) and through the California State University English Equivalency Examination may not be applied toward the bachelor’s degree.

**Community College/Lower Division Transfer Limitation.** Effective for students admitted fall 2017 and later, after completing 105 lower-division quarter units toward the degree in all institutions attended, students are allowed no further unit credit for courses completed at a community college or for lower-division courses completed at any institution outside of the University of California.

**Credit by Examination.** Within the College, eligibility for credit by examination is usually limited to students who have been approved as Departmental Scholars or who are admitted to a departmental honors program or Honors Programs. Students who have completed a minimum of 12 units at UCLA with a minimum 3.5 overall grade-point average may petition for credit by examination. The examination for that course must be taken successfully before students may petition for credit by examination in another course.

Students may receive credit by examination for only one course out of 10 courses completed. Credit by examination may not be used to gain credit for prior knowledge, audited courses, or courses taken elsewhere. Units for a course taken by examination are applied toward the 216-unit maximum allowable units for graduation. Petitions for credit by examination (with fee) are available only through an appointment with a counselor in Honors Programs, A311 Murphy Hall.

**Education Abroad Program.** Students participating in the Education Abroad Program may receive a maximum of 56 units of credit toward the degree including units earned in an Intensive Language Program.

**Foreign Language.** Credit is not allowed for completing a less advanced course in grammar and/or composition after students have received credit for a more advanced course. College credit for an international student’s native language and literature is allowed for courses taken in native colleges and universities or upper-division (advanced language courses only) and graduate courses taken at the University of California or another English-speaking institution of approved standing. No credit is allowed for lower-division courses.

**Performance Courses.** No more than 12 units of music and/or dance performance courses (Dance 5, 6 through 16, 56 through 65, C109A, C113A, 114, C115, 116, Ethnomusicology 68A through 68Z, 91A through 91Z, 161A through 161Z, 168A through 168Z, Music 50, 60A through 61C, 160A through 161C, C185A through C186C, and World Arts and Cultures 114) may be applied toward the bachelor’s degree, whether taken at UCLA or another institution.

**Physical Education.** No more than 4 units in physical education activities courses may be applied toward the bachelor’s degree.

**Physics Courses.** Any two or more courses from Physics 1A, 1AH, 5A, and 6A are limited to a total of 6 units of credit.
ROTC Courses. For students contracted in the Aerospace Studies Department, 36 units of aerospace studies credit may be applied toward the requirements for the bachelor’s degree; for students contracted in the Military Science Department, 26 units of military science credit may be applied; for students contracted in the Naval Science Department, 26 units of naval science credit may be applied.

Statistics Courses. Credit is allowed for only one of Statistics 10, 12, 13, 15 (or former 10H, 11, or 14), and a maximum of 8 units for any combination of introductory statistics courses taken at UCLA and another institution.

Upper-Division Tutorials. No more than 8 units of credit may be taken per term in upper-division tutorials numbered 195 through 199. The total number of units allowed in such courses for a letter grade is 32; see specific restrictions under each course.

300- and 400-Level Courses. No more than 8 units in the 300 and 400 series of courses may be applied toward the bachelor’s degree. Credit is not granted for X300 and X400 courses taken at UCLA Extension.

Academic Advising Services
The College offers academic advising and counseling to help students develop and thrive, both personally and academically, through individual meetings with an adviser in their advising unit: Academic Advancement Program, College Academic Counseling, Honors Programs, or Student Athletics. College advisers work with students to plan their programs, understand requirements and regulations, learn about available resources, navigate the university, and maximize their undergraduate careers.

Academic Advancement Program
Academic Advancement Program (AAP) values student diversity and fosters student empowerment. AAP counselors assist students in planning an academic program and meeting College and UC requirements. They also monitor degree progress and connect students with campus resources and opportunities. Counselors are available for scheduled or same-day appointments. Visit 1205 Campbell Hall or call 310-825-1481.

AAP peer counselors offer peer support and an undergraduate-focused view of life at UCLA. They also can assist students with planning an academic program and navigating campus resources.

College Academic Counseling
College Academic Counseling (CAC) is committed to making students’ campus life and learning experience a positive one. Academic advising helps students develop and thrive both personally and academically in individual meetings, workshops, and other events to plan their programs, understand requirements and regulations, learn about available resources, navigate UCLA, and maximize their undergraduate careers. From orientation to graduation, CAC offers information, assistance, and support so that students can make well-informed decisions about their course of study and degree progress. For additional information or advising, students may come to A316 Murphy Hall, Monday through Friday from 8:30 a.m. to 4:30 p.m.; or call 310-825-3382.

College Academic Mentors work with first- and second-year students and new transfers for academic advising, choosing a major, and preparing for graduate or professional school. Students can also visit ASK Peer Counselors at various locations around campus for quick questions on degree requirements, rules and regulations, deadlines, petitions, and more.

Honors Programs
Honors Programs offers academic counseling and student advising services in a welcoming, safe, and supportive environment. Honors counselors are specially trained professionals with whom students collaborate for pre- and post-graduate planning; while Honors student affairs advisors assist students in navigating the various university processes, rules, and regulations.

Students are welcome to visit the Honors Programs office, A-311 Murphy Hall, or call 310-825-1553.

Student Athletics
Student athletes are assigned an Academic and Student Services (AS2) College academic adviser, whose role is to provide academic advice and direction in the areas of program planning, academic difficulty counseling, degree requirements, and major selection. Visit the Morgan Center or call 310-825-8699.

Honors
College undergraduate students who achieve scholastic distinction may qualify for the following honors and programs.

College Honors
The highest academic recognition the College confers on its undergraduate students is College Honors, which is awarded to graduating seniors who successfully complete the College Honors program and who have an overall University of California grade-point average of 3.5 or better. The program offers exceptional undergraduate students an opportunity to pursue individual excellence.
Dean’s Honors

The Dean’s Honors list recognizes high scholastic achievement in any one term. The following criteria are used to note Dean’s Honors on student records: a 3.75 grade-point average (GPA) in any one term, with at least 12 letter-graded units; or a 3.66 GPA and at least 56 grade points during the term. Students are not eligible for Dean’s Honors in any given term if they receive an Incomplete or a Not Passed (NP). Dean’s Honors are automatically recorded on the transcript for the appropriate term.

Departmental Honors

Individual departments and programs in the College offer departmental honors. Admission and curricular requirements vary according to the department or program. See the Curricula and Courses chapter for details, and consult with a departmental adviser about procedures and arrangements. Students who successfully complete the requirements graduate with departmental honors or highest honors.

Latin Honors

Students who have achieved scholastic distinction may be awarded the bachelor’s degree with Latin honors. To be eligible, students must have completed 90 or more units for a letter grade at the University of California and must have attained an overall grade-point average (GPA) at graduation that places them in the top five percent of College graduates (3.936 GPA or better) for summa cum laude, the next five percent (3.888 GPA or better) for magna cum laude, or the next 10 percent (3.782 GPA or better) for cum laude. Coursework taken on the Education Abroad Program is applied toward Latin honors at graduation. The minimum GPAs required are subject to change on an annual basis. Required GPAs in effect in the graduating year (fall, winter, spring, summer) determine student eligibility. Students should consult their Degree Audits, or the Registrar’s honors web page, for the most current Latin honors calculations.

Departmental Scholar Program

Departments may nominate exceptionally promising undergraduate students (juniors and seniors) as UCLA Departmental Scholars to pursue bachelor’s and master’s degrees simultaneously. Qualifications include completion of 24 courses (96 quarter units) at UCLA or the equivalent at a similar institution, the requirements in preparation for the major, and eligibility to participate in the College Honors program. Students must also have at least one term of coursework remaining at UCLA. To obtain both the bachelor’s and master’s degrees, students must be provisionally admitted to the Graduate Division, fulfill requirements for each program, and maintain a minimum 3.0 (B) GPA. No course may be used to fulfill requirements for both degrees. Interested students should consult with their department well in advance of application dates for graduate admission. For more information, contact the Honors Programs Office in A311 Murphy Hall.

Graduate Study

The College of Letters and Science offers graduate students a variety of opportunities for academic pursuit, faculty-sponsored research, and fieldwork relative to specific programs and career goals.

With Graduate Division approval and subject to UCLA minimum requirements, each department sets its own standards for admission and other requirements for award of master’s and doctorate degrees. For complete degree requirements, see program requirements for UCLA graduate degrees.

For information on proficiency in English requirements for international graduate students, see Graduate Admission in the Graduate Study chapter.

David Geffen School of Medicine

Kelsey C. Martin, MD, PhD, Dean
Geffen School of Medicine
1400 Geffen Hall
310-825-6081
School admissions e-mail

The top-ten-ranked David Geffen School of Medicine at UCLA is internationally recognized as a leader in research, medical education, and patient care. Along with the UCLA Health hospitals and facilities, the school is affiliated with more than a dozen major Southern California health care institutions.

Degrees

The Geffen School of Medicine offers an MD degree program and postgraduate medical training programs; its faculty members participate in the Graduate Programs in Bioscience. Additional master’s and doctorate degrees are offered through the UCLA Graduate Division.

Biomathematics MS, PhD
Clinical Research MS
Genetic Counseling MS
Human Genetics MS, PhD
Articulated Degree Programs

Medicine MD/Graduate Division health science major PhD
Medicine MD/Public Health MPH

Concurrent Degree Programs

Medicine MD/Management MBA
Medicine MD/Public Policy MPP

MD Degree Program

The Doctor of Medicine (MD) degree program is a four-year medical curriculum that prepares students broadly for careers in research, practice, and teaching in the medical field of their choice. For details on the MD curriculum, see the current curriculum. For information about applying to the program, see the application web page or contact the Geffen School of Medicine Admissions Office, B27 Geffen Hall, Box 957035, Los Angeles, CA 90095-7035.

Articulated Degree Programs

The Geffen School of Medicine and the Graduate Division offer the Medical Scientist Training Program, an articulated degree program that allows students to earn both the MD and PhD in about eight years, depending on the course of study and research. The PhD may be awarded in one of several medical or social sciences fields.

An articulated program with the Fielding School of Public Health allows students to earn both the MD and MPH degrees in five years. The program includes four years of medical school and one year plus one additional quarter at the Fielding School of Public Health. Separate application must be made to the Fielding School of Public Health during the third year of medical school.

Concurrent Degree Programs

Concurrent programs with the Anderson Graduate School of Management and Luskin School of Public Affairs allow UCLA medical students to earn both the MD and MBA degrees, or MD and MPP degrees, over five years by following a designated course of study and some shared course-work. Separate application must be made to the Anderson Graduate School of Management or Luskin School of Public Affairs during the third year of medical school.

Special Programs

Partnerships

Extending medical education to a broader segment of tomorrow’s physicians and researchers, the Geffen School of Medicine admits a select group of students into two innovative partnership programs. In addition to completing the requirements for the MD degree, students engage in specialized coursework and/or projects designed to fulfill the mission of each program.

Charles Drew/UCLA Medical Education Program

The mission of the Charles Drew University (CDU)/UCLA Medical Education Program is to train students to practice medicine with competence and compassion in disadvantaged rural and urban communities. Each year 24 students are admitted to the program. Students spend their first two years at the UCLA campus, and complete their last two years of clinical work in specially designated training centers in medically underserved communities and at UCLA and affiliated hospitals. A distinguishing component of the program is the required medical research thesis.

UCLA PRIME Program

The UCLA PRIME Program is a five-year, dual-degree program to develop leaders in medicine who address policy, care, and research issues in health care for underserved populations. A commitment to serve and experience in working with diverse medically disadvantaged populations is paramount. The program leads to the MD and a master’s degree in areas that complement the mission of the program. Each year 18 students are admitted to the class. Students identify with one of two programs: PRIME UCLA-Westwood or PRIME UCLA-CDU.
Postgraduate Medical Training

Postgraduate medical training programs, including residencies, are offered through all the clinical departments at UCLA and the affiliated training hospitals such as Harbor-UCLA, Cedars-Sinai, and Greater Los Angeles VA System. Programs at the affiliated institutions broaden the scope of the teaching programs by offering extensive clinical facilities, special population settings, and diverse practice modes. Information about these programs is available from the individual clinical departments of the Geffen School of Medicine or the affiliated hospitals.

Semel Institute for Neuroscience and Human Behavior

The Semel Institute is one of the world’s leading interdisciplinary research and education institutes devoted to the understanding of complex human behavior. Fourteen research centers ranging from genetics to human culture, together with research initiatives distributed widely across the academic departments of the Geffen School of Medicine and the College of Letters and Science, offer a comprehensive and outstanding research and training environment for the study of neuroscience and behavior.

The research portfolio of the 400 faculty members, graduate students, and fellows who work in the institute spans behavioral genetics, developmental neurobiology, cognitive neuroscience, neuropsycharmacology, brain imaging, clinical research, health policy, and sociocultural studies of human behavior and its disorders.

Graduate School of Education and Information Studies

Christina A. Christie, PhD, Interim Dean

Graduate School of Education and Information Studies
1009 Moore Hall
310-825-8326
School e-mail

The Graduate School of Education and Information Studies (GSE&IS) at UCLA is dedicated to inquiry, advancement of knowledge, improvement of professional practice, and service to the education and information professions. GSE&IS develops future generations of scholars, teachers, information professionals, and institutional leaders. Its work is guided by the principles of individual responsibility and social justice, an ethic of caring, and commitment to the communities it serves.

Faculty members and students of GSE&IS combine a passion and skill for cutting-edge research with an appreciation for its application in the widely diverse cultures and communities in which it exists. These communities serve as fertile training ground for students in all programs, through internships, research projects, summer placements, and teaching opportunities.

GSE&IS is committed to the highest-quality professional education, and to the application of research and scholarship to the challenges facing a diverse and increasingly urbanized world.

Departments and Programs

The school consists of two departments—the Department of Education and the Department of Information Studies. Both have a clear and strong commitment to the pursuit of excellence in their research-oriented and professional degree programs.

Research-oriented master’s and doctoral programs prepare top scholars in their respective fields; while future librarians, archivists, information professionals, teachers, student affairs practitioners, school administrators, and superintendents are prepared in the various professional master’s and doctorate degree programs. The UCLA Lab School (Corinne A. Seeds campus) and the UCLA Community School offer innovative educational programs for pre-K-6 and K-12 students, respectively. The Horace Mann UCLA Community School brings together resources to help young people thrive in the South Los Angeles area.

Degrees

The Graduate School of Education and Information Studies offers the following degrees and undergraduate minor:

- Education MA, MEd, EdD, PhD
- Educational Administration Joint EdD with UC Irvine
- Education and Social Transformation BA
- Information Studies PhD
- Library and Information Science MLIS, accredited by American Library Association
- Special Education Joint PhD with California State University, Los Angeles

Articulated Degree Programs

- Education MEd/Latin American Studies MA
- Library and Information Science MLIS/Latin American Studies MA
Concurrent Degree Programs
Education MEd, MA, EdD, or PhD/Law JD
Library and Information Science MLIS/Management MBA

Credential Programs
The school offers two credential programs accredited by the California Commission on Teacher Credentialing:
Preliminary Administrative Services Credential
Teacher Credential

Undergraduate Minor
Education Studies

Undergraduate Admission

Admission as a Freshman
Freshmen are admitted with a declared premajor in the College of Letters and Science. See the Curricula and Courses chapter for information on applying to the major.

Admission as a Junior
Transfer students are admitted directly to the Graduate School of Education and Information Studies.

Undergraduate Degree Requirements
Students must satisfy UC requirements, school requirements, and major requirements for the Bachelor of Arts degree.

University Requirements
The University of California has two requirements that undergraduate students must satisfy to graduate: Entry-Level Writing or English as a Second Language, and American History and Institutions. Students who do not satisfy the Entry-Level Writing requirement prior to enrollment must pass an approved course or other program prescribed by their UC campus of residence. Only after satisfying the Entry-Level Writing requirement can they take an English composition course for transfer credit after enrolling at UCLA. See Degree Requirements in the Undergraduate Study chapter for details.

School Requirements
There are eight requirements that must be satisfied for the award of the degree.

<table>
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<tr>
<th>Degree Requirements</th>
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<tbody>
<tr>
<td>University Requirements</td>
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<tr>
<td>1. Entry-Level Writing or English as a Second Language</td>
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<td>2. American History and Institutions</td>
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<tr>
<td>School Requirements</td>
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<tr>
<td>1. Unit</td>
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<td>2. Scholarship</td>
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<td>3. Academic Residence</td>
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<td>4. Writing Requirement</td>
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<td>5. Quantitative Reasoning</td>
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<td>6. Foreign Language</td>
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<td>7. Diversity</td>
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<td>8. General Education</td>
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<tr>
<td>Foundations of Arts and Humanities</td>
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<td>Foundations of Society and Culture</td>
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<tr>
<td>Foundations of Scientific Inquiry</td>
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<tr>
<td>Major Requirements</td>
</tr>
<tr>
<td>1. Preparation for the Major</td>
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<tr>
<td>2. The Major</td>
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Courses that do not satisfy specific UC, school, or major requirements are referred to as electives and can be used to meet the minimum unit requirement for graduation.

Unit Requirement
Students must satisfactorily complete for credit a minimum of 180 units for the bachelor’s degree. At least 60 of the 180 units must be upper-division courses numbered 100 through 199. A maximum of 216 units is permitted. Students with Advanced Placement Examination or International Baccalaureate Examination (transfer) credit may exceed the unit maximum by the amount of that credit.

After 216 quarter units, enrollment may not normally be continued in the school without special permission from the dean.

Credit for upper-division tutorials numbered 195 through 199 is limited to 16 units taken for a letter grade. No more than eight units of freshman seminars may be applied toward the degree.

Scholarship Requirement
Students must earn at least a 2.0 (C) grade-point average (GPA) in all courses undertaken at UCLA to receive a bachelor’s degree.
Students must also earn a 2.0 GPA in the major and satisfy both the course and scholarship requirements for the major, including preparation for the major.

**Academic Residence Requirement**

Students are in residence while enrolled and attending classes at UCLA with a declared major in the Graduate School of Education and Information Studies. Thirty-five of the final 45 units completed for the bachelor’s degree must be earned in residence at the school. No more than 18 of these 35 units may be completed in summer session.

For students who transfer from another institution, from UCLA Extension, or from another College or school with senior standing, of the 35 units earned while in residence, 28 must be upper-division units, including 16 upper-division units in the major department. Courses in UCLA Extension may not be offered as part of this residence requirement.

Students enrolled in the Education Abroad Program (EAP) must satisfy the residence requirement by earning 35 of their final 90 units, including the final 12 units, in residence at the school.

**Writing Requirement**

Students must complete the UC Entry-Level Writing or English as a Second Language (ESL) requirement prior to completing the school writing requirement.

Students admitted to the school are required to complete a two-term writing requirement—Writing I and Writing II. Two courses in English composition are required for graduation. Both courses must be taken for letter grades, and students must receive a C or better grade in each (a C– grade is not acceptable).

**Writing I.** The Writing I requirement must be satisfied within the first three terms of enrollment by completing English Composition 3, 3D, 3DS, or 3SL with a C or better grade (a C– or Passed grade is not acceptable).

The Writing I requirement may also be satisfied by scoring 4 or 5 on one of the College Board Advanced Placement Examinations in English; a combination of a score of 720 or better on the SAT Reasoning Test, Writing section (last administered in January 2016) and superior performance on the English Composition 3 Proficiency Examination; completing a course equivalent to English Composition 3 with a C or better grade (a C– or Passed grade is not acceptable) taken at another institution; or scoring 5, 6, or 7 on an International Baccalaureate Higher Level Examination.

Students whose native language is not English may need to take English Composition 1A, 1B, and 2I before enrolling in a Writing I course. All courses in the sequence must be passed with a C or better grade (a C– or Passed grade is not acceptable).

Qualifying examination scores and courses are determined by the school Faculty Executive Committee.

**Writing II.** The Writing II requirement must be satisfied within seven terms of enrollment by completing one course from a faculty-approved list of Writing II courses; see the Registrar’s Writing II requirement web page for details. The course must be completed with a C or better grade (a C– or Passed grade is not acceptable).

Applicable Writing II courses may also fulfill preparation for the major requirements and, if approved for general education (GE) credit, may fulfill a GE requirement.

Transfer students with 90 or more units who have completed the Intersegmental General Education Transfer Curriculum (IGETC) will have satisfied the Writing I, Writing II, and reciprocity requirements. No transfer student is admitted to the school without completing, with a C or better grade (a C– grade is not acceptable), a college-level writing course that Undergraduate Admission accepts as equivalent to English Composition 3.

**Quantitative Reasoning Requirement**

The quantitative reasoning requirement may be satisfied by completing one approved UCLA course (see list below) or an equivalent course within the first seven terms of enrollment. The course must be taken for a letter grade, and students must receive a C or better grade (a C– grade is not acceptable).

The requirement may also be satisfied by achieving an SAT Reasoning Test Mathematics Section score of 600 or better for exams taken January 2016 or earlier, or achieving an SAT Mathematics section score of 620 or better for exams taken
March 2016 or later, or an SAT Subject Test in Mathematics score of 550 or better, or an ACT Mathematics Test score of 26 or better. Approved UCLA courses and examinations, and qualifying scores, are determined by the school Faculty Executive Committee.

Applicable courses may also fulfill preparation for the major requirements and, if approved for general education (GE) credit, may fulfill a GE requirement.

Transfer students with 90 or more units who have completed the Intersegmental General Education Transfer Curriculum (IGETC) will have satisfied the quantitative reasoning and reciprocity requirements. No transfer student is admitted to the school without completing, with a C or better grade (a C– grade is not acceptable), a college-level quantitative reasoning course that Undergraduate Admission accepts as equivalent to those approved by the school Faculty Executive Committee. Approved courses include

- Biostatistics 100A, 100B
- Life Sciences 20, 30A, 30B, 40
- Mathematics 2, 3A, 31A, 31AL
- Philosophy 31
- Political Science 6, 6R
- Program in Computing 10A, 10B, 10C
- Public Affairs 60
- Statistics 10, 12, 13

**Foreign Language Requirement**

The foreign language requirement may be satisfied by one of the following methods: scoring 3, 4, or 5 on the College Board Advanced Placement (AP) foreign language examination in Chinese, French, German, Italian, Japanese, or Spanish, or scoring 4 or 5 in Latin; presenting a UCLA foreign language departmental examination score indicating competency through level three; or completing a college-level foreign language course equivalent to level three or above at UCLA with a C or Passed or better grade.

Transfer students with 90 or more units who have completed the Intersegmental General Education Transfer Curriculum (IGETC) will have satisfied the foreign language and reciprocity requirements.

International students may petition to use an advanced course in their native language for this requirement. Students whose entire secondary education has been completed in a language other than English may petition to be exempt from the foreign language requirement.

Courses that may be used to fulfill this requirement are published on the Registrar’s foreign language requirement web page.

**Diversity Requirement**

The diversity requirement may be satisfied by completing one course from the faculty-approved list of courses. Courses used to satisfy the diversity requirement are approved by the school Faculty Executive Committee. The course must be taken for a letter grade, and students must receive a C or better grade (a C– grade is not acceptable). Applicable courses may also fulfill major, minor, or elective requirements and, if approved for general education (GE) credit, may fulfill a GE requirement. A list of approved courses is available in the Schedule of Classes.

**General Education Requirements**

*General education* (GE) is more than a checklist of required courses. It is a program of study that reveals to students the ways that research scholars in the arts, humanities, social sciences, and natural sciences create and evaluate new knowledge; introduces students to the important ideas and themes of human cultures; fosters appreciation for the many perspectives and diverse voices that may be heard in a democratic society; and develops the intellectual skills that give students the dexterity they need to function in a rapidly changing world.

This entails the ability to make critical and logical assessments of information, both traditional and digital; deliver reasoned and persuasive arguments; and identify, acquire, and use the knowledge necessary to solve problems.

Applicable courses may also fulfill major, minor, or elective requirements and, if approved for diversity or writing, may fulfill the diversity requirement and/or Writing II requirement.

**Foundations of Knowledge**

General education courses are grouped into three foundational areas: Foundations of the Arts and Humanities, Foundations of Society and Culture, and Foundations of Scientific Inquiry.

Ten courses (48 units minimum) are required. GE-approved Writing II courses may fulfill an appropriate foundational area. See the foundational area descriptions below for a breakdown of courses required.

Students who complete a year-long GE cluster series fulfill the Writing II requirement, complete 40 percent of their general education requirements, and receive laboratory/demonstration credit where appropriate.

Courses listed in more than one category can fulfill GE requirements in only one of the categories.

**Foundations of the Arts and Humanities.** Three 5-unit courses, one from each subgroup:
Courses in this area supply perspectives and intellectual skills necessary to comprehend and think critically about our situation in the world as human beings. In particular, courses furnish the basic means to appreciate and evaluate the ongoing efforts of humans to explain, translate, and transform their diverse experiences of the world through such media as language, literature, philosophical systems, images, sounds, and performances. Courses introduce students to the historical development and fundamental intellectual and ethical issues associated with the arts and humanities, and may also investigate the complex relations between artistic and humanistic expression and other facets of society and culture.

**Foundations of Society and Culture.** Three 5-unit courses, one from each subgroup and a third course from either subgroup:
- Historical Analysis
- Social Analysis

Courses in this area introduce students to the ways in which humans organize, structure, rationalize, and govern their diverse societies and cultures over time. Courses focus on a particular historical question, societal problem, or topic of political and economic concern in an effort to demonstrate how issues are objectified for study, how data is collected and analyzed, and how new understandings of social phenomena are achieved and evaluated.

**Foundations of Scientific Inquiry.** Three courses, one from each subgroup and a third course from either subgroup. One 5-unit course from each subgroup must include either laboratory/demonstration or Writing II credit. For students entering fall quarter 2019 through spring quarter 2021, the laboratory requirement is reduced to one 5-unit course from either subgroup. Other courses in the subgroups may be 4 units:
- Life Sciences
- Physical Sciences

Courses in this area ensure that students gain a fundamental understanding of how scientists formulate and answer questions about the operation of both the physical and biological world. Courses also deal with some of the most important issues, developments, and methodologies in contemporary science, addressing such topics as the origin of the universe, environmental degradation, and the decoding of the human genome. Through lectures, laboratory experiences, writing, and intensive discussions, students consider the important roles played by the laws of physics and chemistry in society, biology, Earth and environmental sciences, and astrophysics and cosmology.

**Foundations Course Lists.** Creating and maintaining a general education curriculum is a dynamic process; consequently, courses are frequently added to the list. For the most current list of approved courses that satisfy the Foundations of Knowledge GE plan, contact an academic adviser or see the Schedule of Classes.

<table>
<thead>
<tr>
<th>General Education Requirements</th>
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<tbody>
<tr>
<td><strong>Foundations of the Arts and Humanities</strong></td>
</tr>
<tr>
<td>Literary and Cultural Analysis . . 1 course</td>
</tr>
<tr>
<td>Philosophical and Linguistic Analysis . . 1 course</td>
</tr>
<tr>
<td>Visual and Performance Arts Analysis and Practice 1 course</td>
</tr>
<tr>
<td><strong>Total</strong> = 15 units minimum</td>
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<tr>
<td><strong>Foundations of Society and Culture</strong></td>
</tr>
<tr>
<td>Historical Analysis . . . 1 course</td>
</tr>
<tr>
<td>Social Analysis . . . 1 course</td>
</tr>
<tr>
<td>Third course from either subgroup . . . 1 course</td>
</tr>
<tr>
<td><strong>Total</strong> = 15 units minimum</td>
</tr>
<tr>
<td><strong>Foundations of Scientific Inquiry</strong></td>
</tr>
<tr>
<td>Life Sciences . . . 2 courses</td>
</tr>
<tr>
<td>Physical Sciences . . . 2 courses</td>
</tr>
<tr>
<td>In each subgroup, one of the two courses must be 5 units and carry either laboratory/demonstration or Writing II credit. For students entering fall quarter 2019 through spring quarter 2021, the laboratory requirement is reduced to one 5-unit course from either subgroup. Other courses in the subgroups may be 4 units.</td>
</tr>
<tr>
<td><strong>Total</strong> = 18 units minimum (17 min. fall 2019–spring 2021)</td>
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<tr>
<td><strong>Total GE</strong> . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 10 courses/48 units minimum</td>
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<td>. . . . . . . . (10 courses/47 units minimum F19-S21)</td>
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</tbody>
</table>

**Reciprocity with Other UC Campuses**

Students who transfer to UCLA from other UC campuses and have met all GE requirements prior to entering UCLA are not required to complete the school GE requirements. Written verification from the dean at the other UC campus is required. Consult with a school counselor regarding eligibility for this option.

**Intersegmental General Education Transfer Curriculum**

Transfer students from California community colleges have the option to fulfill UCLA lower-division GE requirements by completing the Intersegmental General Education Transfer Curriculum (IGETC) prior to transfer. The curriculum consists of a series of subject areas and types of courses that have been agreed on by the University of California and the California community colleges. Although GE or transfer core courses are degree requirements rather than admission requirements, students are advised to fulfill them prior to transfer. The IGETC significantly eases the transfer pro-
cess, as all GE requirements are fulfilled when students complete the IGETC courses.

Major Requirements
Two types of requirements must be satisfied for the award of a degree: preparation for the major (lower-division courses) and the major (upper-division courses). Departments set requirements for minors.

Preparation for the Major
Admission to the major requires completion of a set of courses known as preparation for the major. Applicants are admitted to premajor status until requisite courses are satisfactorily completed. See the Curricula and Courses chapter.

The Major
A major consists of a group of coordinated upper-division courses and shall be designated as schoolwide, departmental, interdepartmental, or individual. Each course applied toward the major and preparation for the major must be taken for a letter grade unless otherwise stipulated.

A major consists of a minimum of 40 upper-division units.

Students must complete their major with a scholarship grade-point average of at least 2.0 (C) in all courses in order to remain in the major.

See the Curricula and Courses chapter for more details.

Double Majors. Double majors between the school and other academic units are permitted. Students must be able to complete the proposed double major within the 216-unit limit.

Minors
Students may choose to pursue a minor to complement their major program of study. Minors consist of no fewer than seven courses (28 units) and no more than nine courses (36 units). Some minors also have admission requirements.

For a list of minors and specializations, see Undergraduate Minors and Specializations; descriptions are in the Curricula and Courses chapter.

Policies and Regulations
Degree requirements are subject to policies and regulations, including the following:

Student Responsibility
Students should take advantage of academic support resources, but they are ultimately responsible for keeping informed of and complying with the rules, regulations, and policies affecting their academic standing.

Study List
The study list is a record of classes that a student is taking during a particular term. Each term the study list must include from 12 to 20 units. After the first term, students may petition to enroll in more than 20 units if they have an overall grade-point average of 3.0 (B) and attained at least a 3.0 (B) grade-point average the preceding term with all courses passed.

First-term transfer students from any other UC campus may carry excess units on the same basis as students who have completed one or more terms at UCLA; however, they are not encouraged to do so.

Minimum Progress
Students are expected to complete satisfactorily at least 36 units in any three consecutive terms while in residence; they are placed on probation if they fail to pass these units. They are subject to dismissal if they fail to pass at least 32 units in three consecutive regular terms while in residence.

Changing a Major
Students in good academic standing who wish to change their major may petition to do so provided they can complete the new major within the 216-unit limit and are on track to graduate on time. Petitions must be submitted to and approved by the department or committee in charge of the new major. Admission to certain majors may be closed or restricted; changes are normally not permitted if students are on probation or have begun their last term.

Students who fail to attain a grade-point average of 2.0 (C) in preparation for the major or major courses may be denied the privilege of entering or continuing in that major.

Re-entering Students and Their Majors
Students returning to UCLA to resume their studies after an absence of several years may find their previous major area of study is no longer available. They must select a current major in which to complete their studies. Consult with an academic adviser for assistance.

Concurrent Enrollment
Enrollment at a non-UC institution or UCLA Extension while enrolled at UCLA is not permitted except in extraordinary circumstances. No credit is given for courses taken concurrently elsewhere without the approval of the school.
Credit Limitations
The following credit limitations apply to all undergraduate students. In many cases, units are not deducted until the final term before graduation. Students with questions should consult with an academic adviser.

Transfer students with credit from other institutions (advanced standing credit) receive a Degree Audit from Undergraduate Admission indicating the transferable units from former institutions; however, the following credit limitations may reduce the total number of transferred units that apply toward the degree in the school. Consult with an adviser about these limitations.

Upper-Division Tutorials. No more than 8 units of credit may be taken per term in upper-division tutorials numbered 195 through 199. The total number of units allowed in such courses for a letter grade is 32; see the specific restrictions of each department.

Graduate Courses. Undergraduate students who wish to take courses numbered in the 200 series for credit toward a specific degree requirement must petition for advance approval of the department chair and the dean of the school. Courses numbered in the 300, 400, and 500 series may not be applied toward the degree.

Academic Advising Services
The Graduate School of Education and Information Studies offers advising, program planning in the major and general education requirements, and individual meetings with school and departmental counselors. For counseling information, contact the Office of Student Services, 1002 Moore Hall.

Honors
Undergraduate students who achieve scholastic distinction may qualify for the following honors and programs:

Dean’s Honors
The Dean’s Honors list recognizes high scholastic achievement in any one term. The following criteria are used to note Dean’s Honors on student records: a 3.75 grade-point average (GPA) in any one term, with at least 12 graded units; or a 3.66 GPA and at least 56 grade points during the term. Students are not eligible for Dean’s Honors in any given term if they receive an Incomplete or a Not Passed (NP). Dean’s Honors are automatically recorded on the transcript for the appropriate term.

Latin Honors
Students who have achieved scholastic distinction may be awarded the bachelor’s degree with Latin honors. To be eligible, students must have completed 90 or more units for a letter grade at the University of California and must have attained an overall grade-point average at graduation that places them in the top five percent of school graduates (3.936 GPA or better) for summa cum laude, the next five percent (3.888 GPA or better) for magna cum laude, or the next 10 percent (3.782 GPA or better) for cum laude. Course-work taken on the Education Abroad Program is applied toward Latin honors at graduation. The minimum GPAs required are subject to change on an annual basis. Required GPAs in effect in the graduating year (fall, winter, spring, summer) determine student eligibility. Students should consult their Degree Audits, or the Registrar’s Latin honors web page for the most current Latin honors calculations.

Graduate Study

Admission
Admission criteria established by the UCLA Graduate Division require a bachelor’s degree from a regionally accredited institution comparable in standards and content to a bachelor’s degree from the University of California. A scholastic grade-point average of B (3.0 on a 4.0 scale) or better—or its equivalent if the letter grade system is not used—is required for the last 60 semester units or last 90 quarter units of undergraduate study and in any postbaccalaureate study. Additional requirements for International Applicants are explained in the Graduate Study chapter. See the Graduate Division admissions website.

Degrees and programs in the school set additional admission requirements. See the school admissions web page.

Degree Requirements
Specific degree requirements vary according to the department and program. Refer to program requirements for UCLA graduate degrees.

Research Centers and Institutes
The centers and institutes below furnish GSE&IS with valuable resources that support school programs and research. See research centers.

Black Male Institute
The Black Male Institute (BMI) is a cadre of scholars, practitioners, community members, and policymakers dedi-
cated to improving the educational experiences and life chances of black males. Educational settings are considered to be critical spaces for developing informed action to address black male persistence in schooling, recognizing that the challenges that impact the academic success of black males are manifold, be they economic, social, legal, or health-related.

**Center for Improving Child Care Quality**

The Center for Improving Child Care Quality (CICCQ) conducts high-quality, policy-relevant research, with focus on improving the early care and education environments of young children. Utilizing expertise in the areas of child development, professional development, child care quality, attachment, and observational and survey research methodology, CICCQ conducts basic, applied, and policy-driven research at the local, state, and national levels. CICCQ takes a collaborative approach to the evaluation process, building relationships with community partners to inform research, practice, and professional development.

**Center for Information as Evidence**

The Center for Information as Evidence (CIE) is an interdisciplinary forum to address the ways in which information objects and systems are created, used, and preserved as legal, administrative, scientific, social, cultural, and historical evidence. CIE is committed to incorporating perspectives from ethnic communities around the world, to sustain the diversity within indigenous cultural heritages and broaden methods of information analysis and conservation.

**Center for International and Development Education**

The Center for International and Development Education (CIDE) is a research and action center whose mission is to enhance educational capacity, facilitate human and economic development, and promote cross-cultural exchanges related to international and development education. This is accomplished through a series of publications, research programs, practical initiatives, and networks with existing development and academic institutions.

**Center for Knowledge Infrastructures**

The Center for Knowledge Infrastructures (CKI) conducts research on scientific data practices and policy, scholarly communication, and sociotechnical systems. It explores methods of data collection, innovations in scaling and workflows, and multidisciplinary approaches to complex problems.

**Center for Research and Innovation in Elementary Education**

The Center for Research and Innovation in Elementary Education, also known as CONNECT, links nationally recognized researchers with teachers and administrators at UCLA Lab School and public schools in Southern California to investigate central issues in education. Programs examine children’s learning and development from preschool to sixth grade; investigate teaching diverse student populations; encourage exchange of ideas among scholars, practitioners, and policymakers concerned with child development and school reform; and disseminate effective educational approaches and research.

**Center for Study of Evaluation/National Center for Research on Evaluation, Standards, and Student Testing**

The Center for Study of Evaluation (CSE)/National Center for Research on Evaluation, Standards, and Student Testing (CRESST) is devoted to educational research, development, training, and dissemination. CSE/CRESST supplies leadership in these areas by creating new methodologies for evaluating educational quality, creating new designs for assessing student learning, promoting the sound use of assessment data, setting the national research agenda, and influencing practice.

**Center for the Transformation of Schools**

The Center for the Transformation of Schools (CTS) conducts research and develops tools to help education systems place a commitment to equity at the center of their work.

**Center X**

Center X offers a unique setting where researchers and practitioners collaborate to design and conduct programs that prepare and support K-12 education professionals committed to social justice, instructional excellence, the integration of research and practice, and caring in low-income urban schools.

**Civil Rights Project/Proyecto Derechos Civiles**

The Civil Rights Project/Proyecto Derechos Civiles (CRP) research center is dedicated to creating a new generation of research in social sciences and law on the critical issues of
civil rights and equal opportunity for racial and ethnic groups in the U.S. It has commissioned more than 400 studies, published 14 books, been cited in major Supreme Court decisions on affirmative action, and issued numerous reports from authors at universities and research centers across the country.

**Digital Cultures Laboratory**

The Digital Cultures Laboratory (DCL) offers a unique, people-focused analysis of new technologies as they spread across the world. Faculty members and students examine and discuss the means by which new media technologies impact economics, cultures, politics, labor, and the environment through our collaborations with global partners. They share their insights through digital platforms, monthly blog posts, interviews, consultancies, and collaborative research projects.

**Higher Education Research Institute**

The Higher Education Research Institute (HERI) conducts research, evaluation, information, policy studies, and research training in postsecondary education. The HERI research program includes the outcomes of postsecondary education, leadership development, institutional transformation, faculty performance, federal and state policy, and educational equity; and houses the Cooperative Institutional Research Program (CIRP), the largest ongoing national study of college students in the U.S.

**Institute for Democracy, Education, and Access**

The Institute for Democracy, Education, and Access (IDEA) seeks to understand and challenge pervasive racial and social class inequalities in education. In addition to conducting research and policy analysis, IDEA supports educators, public officials, advocates, community activists, and young people as they design, conduct, and use research to make high-quality public schools and successful college participation routine occurrences in all communities. IDEA also studies how research combines with strategic communications and public engagement to promote widespread participation in civic life.

**Institute for Immigration, Globalization, and Education**

The Institute for Immigration, Globalization, and Education (IGE) conducts multidisciplinary and comparative research engaging policymakers, practitioners, and institutional leaders. The research informs efforts to expand opportunities, reduce barriers, and improve the well-being of diverse, vulnerable, and marginalized students. The work is timely in the context of globalization, which is profoundly changing the developmental contexts, educational trajectories, and life courses of children, adolescents, and young adults.

**Paulo Freire Institute**

The Paulo Freire Institute (PFI) seeks to gather scholars and critics of Freire’s pedagogy in permanent dialog to foster the advancement of new pedagogical theories and concrete interventions in the real world. PFI brings together research, teaching, and technology while concentrating on five major areas: studies of globalization and education, teacher education, a comparative perspective on Latin American education, the politics of education, and Paulo Freire’s political philosophy and critical pedagogy.

**Sudikoff Family Institute for Education and New Media**

The Sudikoff Family Institute for Education and New Media utilizes the popular press and other media to disseminate the work of GSE&IS scholars to policymakers, educators, and the general public. Sudikoff Fellows are selected each year from GSE&IS faculty members to enhance awareness of critical issues related to education and information studies, by contributing to a variety of media that reach a lay audience or serve the public interest in some manner.

**Henry Samueli School of Engineering and Applied Science**

Jayathi Y. Murthy, PhD, Dean

Samueli School of Engineering and Applied Science
6426 Boelter Hall
310-825-2826

Founded in 1945, the UCLA Henry Samueli School of Engineering and Applied Science is committed to providing a rigorous hands-on engineering education to undergraduate and graduate students. Recognized internationally as a top program, UCLA Samueli is the birthplace of the Internet and has developed breakthrough technologies in aerospace systems, wireless communication, solar energy, clean water, and much more. As part of a great public university, the school is committed to a core mission of education, research, and service.

UCLA Samueli supports dynamic programs in traditional and new disciplines, and pursues cutting-edge research in
areas such as precision medicine and bioengineering, sustainable and resilient urban systems, advanced materials and manufacturing, robotics and cyberphysical systems, computer networking and cybersecurity, artificial intelligence and machine learning, and data science. Partnerships across campus reflect the school commitment to a wide range of interdisciplinary activities in health care, business, public policy, and more.

Students receive their education through traditional lectures, hands-on experience in the school makerspace and laboratories, and assignments that develop real-world problem-solving skills. The undergraduate degree curriculum also exposes students to the humanities, social sciences, life sciences, and the arts. It includes a technical breadth requirement, designed to provide students with working knowledge of a technical field outside their major. The school emphasizes that engineers must uphold high ethical standards in creating and managing technology, and is committed to training engineers from diverse backgrounds. Opportunities exist for students to gain exposure to entrepreneurship and commercialization of technologies. Undergraduate students are encouraged to participate in industrial internships and academic research. Students are committed to a high standard of achievement and service to society, consistent with the mission of the school and UCLA.

**Departments and Programs**

The Henry Samueli School of Engineering and Applied Science has seven departments that offer study in aerospace engineering, bioengineering, chemical engineering, civil engineering, computer engineering, computer science, computer science and engineering, electrical and computer engineering, electrical engineering, manufacturing engineering, materials engineering, and mechanical engineering. Undergraduate programs in aerospace engineering, bioengineering, chemical engineering, civil engineering, computer science and engineering, electrical engineering, materials engineering, and mechanical engineering are accredited by the Engineering Accreditation Commission of ABET. The computer science and computer science and engineering programs are accredited by the Computing Accreditation Commission of ABET. The undergraduate program in computer engineering, established in fall 2017, will be submitted to ABET for accreditation during the next ABET visit in 2024.

For specific programs, see department information in the Curricula and Courses chapter; or refer to the school Announcement available from the Office of Academic and Student Affairs, 6426 Boelter Hall.

**Degrees**

The Henry Samueli School of Engineering and Applied Science offers the following degrees and undergraduate minors:

- Aerospace Engineering BS, MS, PhD
- Bioengineering BS, MS, PhD
- Chemical Engineering BS, MS, PhD
- Civil Engineering BS, MS, PhD
- Computer Engineering BS
- Computer Science BS, MS, PhD
- Computer Science and Engineering BS
- Electrical and Computer Engineering MS, PhD
- Electrical Engineering BS
- Engineering MEngr, online MS, Engr
- Engineering – Aerospace online MS
- Engineering – Computer Networking online MS
- Engineering – Electrical online MS
- Engineering – Electronic Materials online MS
- Engineering – Integrated Circuits online MS
- Engineering – Manufacturing and Design online MS
- Engineering – Materials Science online MS
- Engineering – Mechanical online MS
- Engineering – Signal Processing and Communications online MS
- Engineering – Structural Materials online MS
- Engineering and Applied Science Graduate Certificate of Specialization
- Manufacturing Engineering MS
- Materials Engineering BS
- Materials Science and Engineering MS, PhD
- Mechanical Engineering BS, MS, PhD

**Concurrent Degree Program**

Computer Science MS/Management MBA

**Undergraduate Minors**

- Bioinformatics
- Environmental Engineering

**Undergraduate Admission**

Applicants for admission to the school must satisfy the UC admission requirements as outlined in the Undergraduate
Students who have completed 36 quarter units after high school graduation at the time of the examination receive no AP Examination credit.

**Admission as a Junior**

Students who begin their college work at a California community college are expected to remain at the community college to complete the lower-division requirements in chemistry, computer programming, English composition, mathematics, physics, and the recommended engineering courses before transferring to UCLA. Transfer students who have completed the recommended lower-division program in engineering at California community colleges normally can complete the remaining requirements for one of the BS degrees in two to three academic years of full-time study. Students who select certain majors, such as Computer Science and Engineering or Chemical Engineering, may be required to complete additional lower-division courses for the major sequence.

**Lower-Division Requirements**

Applicants to the school in junior standing should have completed 90 quarter units (60 semester units) in good standing, including the following lower-division minimum subject requirements:

1. Chemistry courses equivalent to Chemistry and Biochemistry 20A, 20B, 20L at UCLA (only Chemistry and Biochemistry 20A is required for the Electrical Engineering major; the Bioengineering and Chemical Engineering curricula also require Chemistry and Biochemistry 30A, 30AL, 30B). The Computer Engineering, Computer Science, and Computer Science and Engineering majors do not require chemistry


3. Physics courses equivalent to Physics 1A, 1B, 1C, 4AL, 4BL at UCLA, depending on curriculum selected

4. Computer programming: applicants to the Computer Engineering, Computer Science, Computer Science and Engineering, and Electrical Engineering majors may take any C++, C, or Java course to meet the admission requirement, but to be competitive the applicant must take a C++ course equivalent to Computer Science 31 at UCLA. Applicants to Chemical Engineering may take any C++, C, Java, or MATLAB course to satisfy the admission requirement, but lack of a MATLAB course equivalent to Mechanical and Aerospace Engineering M20 or Civil and Environmental Engineering M20 at UCLA will delay time to graduation. Appli-
...cants to all other engineering majors may take any C++, C, Java, or MATLAB course to satisfy the admission requirement, but the MATLAB course equivalent to Mechanical and Aerospace Engineering M20 or Civil and Environmental Engineering M20 is preferred.

5. At least one general education (GE) course in the arts, humanities, or social sciences as required to be UC eligible.

Transfer students must also complete a course equivalent to English Composition 3 at UCLA and a second UC-transferable English composition course.

All lower-division requirements should be completed by the end of the spring term prior to anticipated enrollment at UCLA.

Transfer Credit
Students transferring to the school from institutions that offer instruction in engineering subjects in the first two years, particularly California community colleges, may be given credit for certain engineering core requirements.

Many sophomore courses in circuit analysis, strength of materials, and properties of materials may satisfy Civil and Environmental Engineering 108, Electrical and Computer Engineering 100, and Materials Science and Engineering 104 requirements respectively. Students should check with the Office of Academic and Student Affairs, 6426 Boelter Hall.

Undergraduate Degree Requirements

Students must satisfy UC requirements, school requirements, and department requirements for the Bachelor of Science degree.

University Requirements

The University of California has two requirements that undergraduate students must satisfy in order to graduate: Entry-Level Writing or English as a Second Language, and American History and Institutions. See Degree Requirements in the Undergraduate Study chapter for details.

School Requirements

There are seven requirements that must be satisfied for award of a degree.

Unit Requirement

The minimum units allowed for students is between 180 and 185, depending on the program. The maximum allowed is 213 units.

Degree Requirements

University Requirements

1. Entry-Level Writing or English as a Second Language
2. American History and Institutions

School Requirements

1. Unit
2. Scholarship
3. Academic Residence
4. Writing Requirement
   - Writing I
   - Engineering Writing
5. Technical Breadth
6. Ethics Requirement
7. General Education
   - Foundations of Arts and Humanities
   - Foundations of Society and Culture
   - Foundations of Scientific Inquiry

Department Requirements

1. Preparation for the Major
2. The Major

Courses that do not satisfy specific UC, school, or department requirements are referred to as electives and can be used to meet the minimum unit requirement for graduation.

After 213 quarter units, enrollment may not normally be continued in the school without special permission from the associate dean. This regulation does not apply to Departmental Scholars.

Scholarship Requirement

Students must earn at least a 2.0 (C) grade-point average in all courses taken at any UC campus. In addition, at least a 2.0 grade-point average must be achieved in total upper-division required courses and total upper-division engineering courses. See a counselor in 6426 Boelter Hall for details.

Academic Residence Requirement

Of the last 48 units completed for the BS degree, 36 must be earned in residence at the Samueli School of Engineering and Applied Science on this campus. No more than 16 of the 36 units may be completed in summer sessions at UCLA.

Writing Requirement

Students must complete the UC Entry-Level Writing or English as a Second Language (ESL) requirement prior to completing the school writing requirement.

Students admitted to the school are required to complete a two-term writing requirement—Writing I and Engineering Writing. Both courses must be taken for a letter grade, and...
students must receive a C or better grade in each (a C– grade is not acceptable).

**Writing I.** The Writing I requirement must be satisfied by the end of the second year of enrollment by completing English Composition 3, 3D, 3DS, 3E, or 3SL with a C or better grade (a C– grade is not acceptable).

The Writing I requirement may also be satisfied by scoring 4 or 5 on one of the College Board Advanced Placement Examinations in English; a combination of a score of 720 or better on the SAT Reasoning Test, Writing section (last administered in January 2016) and superior performance on the English Composition 3 Proficiency Examination; completing a course equivalent to English Composition 3 with a C or better grade (a C– or Passed grade is not acceptable) taken at another institution; or scoring 5, 6, or 7 on an International Baccalaureate Higher Level Examination.

Students whose native language is not English may need to take English Composition 1A, 1B, and 2I before enrolling in a Writing I course. All courses in the sequence must be passed with a C or better grade (a C– or Passed grade is not acceptable).

**Engineering Writing.** The Engineering Writing requirement is satisfied by selecting one approved engineering writing (EW) course from the school writing course list or by selecting one approved Writing II (W) course. The course must be completed with a C or better grade (a C– or Passed grade is not acceptable). Writing courses are published in the Schedule of Classes.

Writing courses also approved for general education credit may be applied toward the relevant general education foundational area.

**Technical Breadth Requirement**

The technical breadth requirement consists of a set of three courses providing sufficient breadth outside the student’s core program. A list of school Faculty Executive Committee-approved technical breadth requirement courses is available in the Office of Academic and Student Affairs, 6426 Boelter Hall, and deviations from that list are subject to approval by the associate dean for Academic and Student Affairs. None of the technical breadth requirement courses selected by students can be used to satisfy other major course requirements.

**Ethics Requirement**

The ethics and professionalism requirement is satisfied by completing one course from Engineering 181EW, 182EW, 183EW, or 185EW with a C or better grade (a C– or Passed grade is not acceptable). The course may be applied toward the Engineering Writing requirement.

**General Education Requirements**

**General education** (GE) is more than a checklist of required courses. It is a program of study that reveals to students the ways that research scholars in the arts, humanities, social sciences, and natural sciences create and evaluate new knowledge; introduces students to the important ideas and themes of human cultures; fosters appreciation for the many perspectives and diverse voices that may be heard in a democratic society; and develops the intellectual skills that give students the dexterity they need to function in a rapidly changing world.

This entails the ability to make critical and logical assessments of information, both traditional and digital; deliver reasoned and persuasive arguments; and identify, acquire, and use the knowledge necessary to solve problems.

Students may take one GE course per term on a Passed/Not Passed (P/NP) basis if they are in good academic standing and are additionally enrolled in nine letter-graded units. For details on P/NP grading, see Grades in the Academic Policies chapter or consult with a counselor in the Office of Academic and Student Affairs.

GE courses used to satisfy the engineering writing and/or ethics requirements must be taken for a letter grade.

**Foundations of Knowledge**

General education courses are grouped into three foundational areas: Foundations of the Arts and Humanities, Foundations of Society and Culture, and Foundations of Scientific Inquiry.

Five courses (24 units minimum) are required. Engineering writing requirement courses also approved for GE credit may be applied toward the relevant GE foundational areas.

Students must meet with a counselor in the Office of Academic and Student Affairs to determine the applicability of GE cluster courses toward the engineering writing or GE requirements.

Courses listed in more than one category can fulfill GE requirements in only one of the categories.

**Foundations of the Arts and Humanities.** Two 5-unit courses selected from two different subgroups:

- Literary and Cultural Analysis
- Philosophical and Linguistic Analysis
- Visual and Performance Arts Analysis and Practice

Courses in this area supply perspectives and intellectual skills necessary to comprehend and think critically about our situation in the world as human beings. In particular, courses furnish the basic means to appreciate and evaluate the ongoing efforts of humans to explain, translate, and
transform their diverse experiences of the world through such media as language, literature, philosophical systems, images, sounds, and performances. The courses introduce students to the historical development and fundamental intellectual and ethical issues associated with the arts and humanities and may also investigate the complex relations between artistic and humanistic expression and other facets of society and culture.

**Foundations of Society and Culture.** Two 5-unit courses, one from each subgroup:

- Historical Analysis
- Social Analysis

Courses in this area introduce students to the ways in which humans organize, structure, rationalize, and govern their diverse societies and cultures over time. Courses focus on a particular historical question, societal problem, or topic of political and economic concern in an effort to demonstrate how issues are objectified for study, how data is collected and analyzed, and how new understandings of social phenomena are achieved and evaluated.

**Foundations of Scientific Inquiry.** One course (4 units minimum) from the Life Sciences subgroup or one course from Bioengineering CM145/Chemical Engineering CM145, Chemistry and Biochemistry 153A, or Civil and Environmental Engineering M166/Environmental Health Sciences M166:

- Life Sciences

This requirement is automatically satisfied for Bioengineering and Chemical Engineering majors. The requirement is satisfied for Civil Engineering majors by the natural science requirement.

Courses in this area ensure that students gain a fundamental understanding of how scientists formulate and answer questions about the operation of both the physical and biological world. Courses also deal with some of the most important issues, developments, and methodologies in contemporary science, addressing such topics as the origin of the universe, environmental degradation, and the decoding of the human genome. Through lectures, laboratory experiences, writing, and intensive discussions, students consider the important roles played by the laws of physics and chemistry in society, biology, Earth and environmental sciences, and astrophysics and cosmology.

**Foundations Course Lists.** Creating and maintaining a general education curriculum is a dynamic process; consequently, courses are frequently added to the list. For the most current list of approved courses that satisfy the Foundations of Knowledge GE plan, consult with an academic counselor or see the Schedule of Classes.

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**General Education Requirements**

**Foundations of the Arts and Humanities**
- Literary and Cultural Analysis
- Philosophical and Linguistic Analysis
- Visual and Performance Arts Analysis and Practice2 courses
- Each course must be from a different subgroup.
- Total = 10 units minimum

**Foundations of Society and Culture**
- Historical Analysis
- Social Analysis
- Total = 10 units minimum

**Foundations of Scientific Inquiry**
- Life Sciences
- Total = 4 units minimum

**Total GE**
- 5 courses/24 units minimum

Engineering writing requirement courses also approved for GE credit may be applied toward the relevant GE foundational areas.

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**Intersegmental General Education Transfer Curriculum**

Transfer students from California community colleges have the option to fulfill UCLA lower-division GE requirements by completing the Intersegmental General Education Transfer Curriculum (IGETC) prior to transfer. The curriculum consists of a series of subject areas and types of courses that have been agreed on by the University of California and the California community colleges. Although GE or transfer core courses are degree requirements rather than admission requirements, students are advised to fulfill them prior to transfer. The IGETC significantly eases the transfer process, as all UCLA GE requirements are fulfilled when students complete the IGETC courses. Students who select the IGETC must complete it entirely before enrolling at UCLA. Otherwise, they must fulfill the Henry Samueli School of Engineering and Applied Science GE requirements. The school does not accept partial IGETC.

**Department Requirements**

Departments generally set two types of requirements that must be satisfied for award of a degree: preparation for the major (lower-division courses) and the major (upper-division courses). Preparation for the major courses should be completed before beginning upper-division work.

**Preparation for the Major**

A major requires completion of a set of courses known as preparation for the major. Each department sets its own
preparation for the major requirements; see the Curricula and Courses chapter.

The Major

Students must complete their major with a scholarship grade-point average of at least 2.0 (C) in all courses in order to remain in the major. Each course in the major department must be taken for a letter grade. See the Curricula and Courses chapter for details on each major.

Minors and Double Majors

Students in good academic standing may be permitted to have a minor or double major. The minor or second major must be outside the school (e.g., Electrical Engineering major and Economics major). Students are not permitted to have a double major with two school majors (e.g., Chemical Engineering and Civil Engineering). Students may file an Undergraduate Request to Double Major or Add Minor form at the Office of Academic and Student Affairs. The school determines final approval of a minor or double major request; review is done on a case-by-case basis, and filing the request does not guarantee approval. Students interested in a minor or double major should meet with their counselor in 6426 Boelter Hall.

While minor and double major requests are considered, specializations are not considered.

Policies and Regulations

Degree requirements are subject to policies and regulations, including the following:

Student Responsibility

Students should take advantage of academic support resources, but they are ultimately responsible for keeping informed of and complying with the rules, regulations, and policies affecting their academic standing.

Study List

The study list is a record of classes that a student is taking during a particular term. It is the student's responsibility to present a study list that reflects satisfactory progress toward the degree. Study lists or programs of study that do not comply with the standards set by the faculty may result in enforced withdrawal from UCLA or other academic action. Study lists require approval of the dean of the school or a designated representative.

Undergraduate students in the school are expected to enroll in at least 12 units each term. Students enrolling in fewer than 12 units must obtain approval by petition to the dean before enrolling in classes. The normal program is 16 units per term. Students may not enroll in more than 21 units per term unless an Excess Unit Petition is approved in advance by the dean.

Minimum Progress

Full-time undergraduate students must complete a minimum of 36 units in three consecutive terms in which they are registered.

Credit Limitations

The following credit limitations apply to all undergraduate students enrolled in the school:

Advanced Placement Examinations. Some portions of Advanced Placement (AP) Examination credit are evaluated by corresponding UCLA course number. If students take the equivalent UCLA course, a deduction of UCLA unit credit is made prior to graduation. See the school AP table.

College Level Examination Program. Credit earned through the College Level Examination Program (CLEP) may not be applied toward the bachelor’s degree.

Community College/Lower Division Transfer Limitation. Effective for students admitted fall 2017 and later, after completing 105 lower-division quarter units toward the degree in all institutions attended, students are allowed no further unit credit for courses completed at a community college or for lower-division courses completed at any institution outside of the University of California. The University of California does not grant transfer credit for community college or lower-division courses beyond 105 quarter units, but students may still receive subject credit for this coursework to satisfy lower-division requirements. Units earned through Advanced Placement (AP), International Baccalaureate (IB), and/or A-Level examinations are not included in the limitation. Units earned at any UC campus (through extension, summer, cross-campus, UCEAP, Intercampus Visitor Program, and regular academic year enrollment) are not included in the limitation. To convert semester units into quarter units, multiply the semester units by 1.5; for example, 12 semester units x 1.5 = 18 quarter units. To convert quarter units into semester units, multiply the quarter units by .666; for example, 12 quarter units x .666 = 7.99 or 8 semester units.

Foreign Language. No credit is granted toward the bachelor’s degree for college foreign language courses equivalent to quarter levels one and two if the equivalent of level two of the same language was completed with satisfactory grades in high school.
Repetition of Courses

For undergraduate students who repeat a total of 16 or fewer units, only the most recently earned letter grades and grade points are computed in the grade-point average (GPA). After repeating 16 units, the GPA is based on all letter grades assigned and total units attempted. The grade assigned each time a course is taken is permanently recorded on the transcript.

1. To improve the grade-point average (GPA), students may repeat only those courses in which they receive a C– or lower grade; NP or U grades may be repeated to gain unit credit. Courses in which a letter grade is received may not be repeated on a P/NP or S/U basis. Courses originally taken on a P/NP or S/U basis may be repeated on the same basis or for a letter grade.

2. Repetition of a course more than once requires the approval of the College or school or the dean of the Graduate Division and is granted only under extraordinary circumstances.

3. Degree credit for a course is given only once, but the grade assigned each time the course is taken is permanently recorded on the transcript.

4. There is no guarantee that in a later term a course can be repeated (such as in cases when a course is deleted or no longer offered). In these cases, students should consult with their academic counselor to determine if there is an alternate course that can be taken to satisfy a requirement. The alternate course would not count as a repeat of the original course.

Counseling Services

Academic counselors in the Office of Academic and Student Affairs assist students with UCLA procedures and answer questions related to general requirements.

New undergraduate students must have their course of study approved by an academic counselor. After the first term, curricular and career advising is accomplished on a formal basis. Freshmen students are assigned a faculty adviser in their particular specialization.

In addition, undergraduate students are assigned, by major, to an academic counselor in the Office of Academic and Student Affairs who provides them with advice regarding general requirements for degrees, and UC, UCLA, and school regulations and procedures. It is the student’s responsibility to periodically meet with their academic counselor, as well as with their faculty adviser, to discuss curriculum requirements, programs of study, and any other academic matters of concern.

Students normally follow the curriculum in effect when they enter the school. California community college transfer students may also select the curriculum in the catalog in effect at the time they began their community college work in an engineering program, provided attendance has been continuous since that time.

Students admitted to UCLA in fall quarter 2012 and thereafter use the Degree Audit system, which can be accessed through MyUCLA. Students should contact their academic counselor in 6426 Boelter Hall with any questions.

Undergraduate students admitted to UCLA prior to fall quarter 2012, and beginning their upper-division major field coursework, are advised to meet with their academic counselor in 6426 Boelter Hall to review their degree requirements.

Honors

Undergraduate students who achieve scholastic distinction may qualify for the following honors and programs:

Dean’s Honors

The Dean’s Honors list recognizes high scholastic achievement in any one term. The following criteria are used to note Dean’s Honors on student records: a 3.7 grade-point average (GPA) in any one term, with at least 15 units (12 units of letter grade). Students are not eligible for Dean’s Honors in any given term if they receive an Incomplete or a Not Passed (NP) grade, or repeat a course. Only courses applicable to an undergraduate degree are considered toward eligibility for Dean’s Honors. Dean’s Honors are automatically recorded on the transcript for the appropriate term.

Latin Honors

Students who have achieved scholastic distinction may be awarded the bachelor’s degree with honors. To be eligible, students must have completed 90 or more units for a letter grade at the University of California and must have attained a cumulative grade-point average (GPA) at graduation that places them in the top five percent of the school (GPA of 3.914 or better) for summa cum laude, next five percent (GPA of 3.857 or better) for magna cum laude, and the next 10 percent (GPA of 3.743 or better) for cum laude. The minimum GPAs required are subject to change on an annual basis. Required GPAs in effect in the graduating year determine student eligibility.

Based on grades achieved in upper-division courses applied to a specific school degree requirement, engineering students must also have a 3.914 GPA for summa cum laude, 3.857 for magna cum laude, and 3.743 for cum laude. For all designations of honors, students must have a minimum 3.25 GPA.
GPA in their major field upper-division courses. Upper-division courses that are not applied to a specific school BS degree requirement are excluded from these upper-division averages.

Tau Beta Pi

The UCLA chapter of Tau Beta Pi, the national engineering honor society, encourages high scholarship, supplies volunteer tutors, and offers many services and programs to foster a spirit of liberal culture in engineering colleges.

Departmental Scholar Program

Exceptionally promising juniors or seniors may be nominated as Departmental Scholars to pursue engineering bachelor’s and master’s degree programs simultaneously. Minimum qualifications include the completion of 24 courses (96 quarter units) at UCLA, or the equivalent at a similar institution; a minimum 3.7 grade-point average (GPA) in the major field upper-division courses and a minimum 3.7 cumulative GPA; and the requirements in preparation for the major. To obtain both the bachelor’s and master’s degrees, Departmental Scholars fulfill the requirements for each program. Students may not use any one course to fulfill requirements for both degrees.

For details, contact the Office of Academic and Student Affairs in 6426 Boelter Hall well in advance of application dates for admission to graduate standing.

Exceptional Student Admissions Program

There is an Exceptional Student Admissions Program (ESAP) for outstanding Samueli School undergraduates who wish to enter the school graduate program upon completion of the BS degree. ESAP is an alternative to the Departmental Scholar Program. In contrast to that program, an ESAP-admitted student would be an enrolled graduate student and would be eligible for consideration of graduate fellowships and teaching assistant positions if available.

Special Programs

Extracurricular Activities

Students are encouraged to participate in UCLA extracurricular activities, especially those relevant to engineering such as the student engineering society (Engineering Society, University of California), student publications, and programs of the technical and professional engineering societies in the Los Angeles area.

The student body takes an active part in shaping policies of the school through elected student representatives on the school Faculty Executive Committee.

Women in Engineering

Among UCLA engineering students, women make up approximately 28 percent of the undergraduate and 23 percent of the graduate enrollment. Today’s opportunities for women in engineering are excellent, as both employers and educators try to change the image of engineering as a males-only field. Women engineers are in great demand in all fields of engineering.

The Society of Women Engineers (SWE), recognizing that women in engineering are still a minority, has established a UCLA student chapter that sponsors field trips and engineering-related speakers (often professional women) to introduce the various options available to women engineers. The UCLA chapter of SWE, in conjunction with other Los Angeles schools, also publishes an annual résumé book to aid women students in finding jobs; and presents a career day for high school students.

Continuing Education

Continuing education in engineering is developed and administered by the UCLA Extension (UNEX) Engineering and Technology Department in close cooperation with Henry Samueli School of Engineering and Applied Science. The department offers evening classes, short courses, certificate programs, special events, and education and training at the workplace.

Graduate Study

Concurrent Degree Program

A concurrent degree program between the Henry Samueli School of Engineering and Applied Science and the Anderson Graduate School of Management allows students to earn two master’s degrees simultaneously: the MBA and the MS in Computer Science. Students should contact the Office of Academic and Student Affairs for details.

Master of Science in Engineering Online Degree

The Master of Science in Engineering online self-supporting degree program enables employed engineers and computer scientists to augment their technical education beyond the Bachelor of Science degree, and enhances their value to the technical organizations by which they are employed.
Master of Engineering Degree

The Master of Engineering (MEng) degree is granted to graduates of the Engineering Executive Program, a two-year work-study program consisting of graduate-level professional courses in the management of technological enterprises.

Engineer Degree

The school offers an Engineer (Engr) degree at a level equivalent to completion of preliminaries in the PhD program. The Engineer degree represents considerable advanced training and competence in the engineering field but does not require the research effort involved in a PhD dissertation.

Requirements for the Engineer degree are identical to those of the PhD degree up to and including the oral preliminary examination, except that the Engineer degree is based on coursework. The minimum requirement is 15 (at least nine graduate) courses beyond the bachelor’s degree, with at least six courses in the major field (minimum of four graduate courses) and at least three in each minor field (minimum of two graduate courses in each).

The PhD and Engineer degree programs are administered interchangeably, so that a student in the PhD program may exit with an Engineer degree or pick up the Engineer degree en route to the PhD degree; similarly, a student in the Engineer degree program may continue to the PhD after receiving the Engineer degree. The time spent in either of the two programs may also be applied toward the minimum residence requirement and time limitation for the other program.

PhD Degrees

The PhD programs prepare students for advanced study and research in the major areas of engineering and computer science. All candidates must fulfill the minimum requirements of the Graduate Division. Major and minor fields may have additional course and examination requirements. For more information, contact the individual departments.

Fields of Study

Established fields of study for the PhD are listed below. With the support of an adviser, students may propose any other field of study to their department. Instructions on the definition of acceptable ad hoc fields and procedures for their approval are available in each department office.

Bioengineering Department. Biomedical instrumentation, biomedical signal and image processing, biosystems science and engineering, medical imaging informatics, molecular cellular tissue therapeutics, neuroengineering

Chemical and Biomolecular Engineering Department. Chemical engineering

Civil and Environmental Engineering Department. Civil engineering materials, environmental engineering, geotechnical engineering, hydrology and water resources engineering, structures (structural mechanics and structural/earthquake engineering)

Computer Science Department. Artificial intelligence, computational systems biology, computer network systems, computer science theory, computer system architecture, data science computing, graphics and vision, software systems

Electrical and Computer Engineering Department. Circuits and embedded systems, physical and wave electronics, signals and systems

Materials Science and Engineering Department. Ceramics and ceramic processing, electronic and optical materials, structural materials

Mechanical and Aerospace Engineering Department. Applied mathematics (established minor field only), applied plasma physics (minor field only), design, robotics, and manufacturing (DROM), fluid mechanics, dynamics, micro-nano engineering, structural and solid mechanics, systems and control, thermal science and engineering (TSE)

Graduate Certificate of Specialization

The school offers a Certificate of Specialization in all areas, except computer science. Requirements for admission are the same as for the MS degree.

Each graduate certificate program consists of five 100- or 200-series courses, at least two of which must be at the graduate level. No work completed for any previously awarded degree or credential may be applied toward the certificate. Successful completion of a certificate program requires an overall minimum 3.0 (B) grade-point average in all courses applicable to the certificate. In addition, graduate certificate candidates are required to maintain a minimum 3.0 (B) grade-point average in 200-series courses used in the program. A minimum of three terms of academic residence is required. The time limitation for completing the requirements of a certificate program is two calendar years. Details about certificate programs may be obtained from each department office.

Courses completed in the school for a Certificate of Specialization may subsequently be applied toward master’s and/or doctorate degrees.

Admission

In addition to meeting the requirements of the Graduate Division, applicants to Henry Samueli School of Engineering
and Applied Science graduate programs are required to take the General Test of the Graduate Record Examination (GRE). Specific information about the GRE may be obtained from the department of interest.

Students entering the Engineer/PhD program normally are expected to have completed the requirements for the master’s degree with at least a 3.25 grade-point average and to have demonstrated creative ability. Check with department of interest for specific GPA requirements. Usually the MS degree is required for admission to the PhD program. Exceptional students, however, can be admitted to the PhD program without having an MS degree.

For information on the proficiency in English requirements for international graduate students, see Graduate Admission in the Graduate Study chapter.

To submit a graduate application, see the school graduate admissions web page. From there connect to the preferred department or program site and go to the online graduate application.

Graduate Degree Requirements
Graduate degree information is updated annually in program requirements for UCLA graduate degrees.

Master of Science Degrees
No lower-division courses may be applied toward graduate degrees. In addition, the various departments generally do not allow, for graduate degree credit, courses required of their undergraduate students. Consult the departmental graduate affairs office for more information.

Individual departments may impose certain restrictions on the applicability of other undergraduate courses toward graduate degrees. Consult with the graduate adviser on departmental requirements and restrictions.

Major Fields or Subdisciplines
The MS program focuses on one major field. The major fields and subdisciplines offered at the MS level in most cases parallel those listed for the PhD program. There are some differences (for example, manufacturing engineering in the Department of Mechanical and Aerospace Engineering is offered only at the MS level). Students should contact the specific department regarding possible differences between the MS and PhD fields and subdisciplines. Students are free to propose to the school any other field of study, with the support of their adviser.

Course Requirements
A total of nine courses is required for an MS degree, including a minimum of five graduate courses. (Some fields require more than five; obtain specific information from the department of interest.) A majority of the total formal course requirement and of the graduate course requirement must consist of school courses. In the thesis plan, seven of the nine courses must be formal courses, including at least four from the 200 series. The remaining two courses may be 598 courses involving work on the thesis. In the comprehensive examination plan, at least five of the nine courses must be in the 200 series; the remaining four courses may be either 200-series graduate or upper-division undergraduate courses. No 500-series courses may be applied toward the comprehensive examination plan requirements.

Thesis Plan
The thesis must either describe some original piece of research that students have done, usually but not necessarily under the supervision of the thesis committee; or supply a critical exposition of some topic in their major field of study. Students would normally start to plan the thesis at least one year before award of the MS degree is expected. There is no examination under the thesis plan.

Comprehensive Examination Plan
For information on the comprehensive examination plan for each department, see program requirements for UCLA graduate degrees.

Herb Alpert School of Music
Eileen L. Strempel, DM, Dean
Alpert School of Music
2539 Schoenberg Music Building
310-825-4761

First of its kind in the UC system, the UCLA Herb Alpert School of Music focuses on scholarship, performance, composition, pedagogy, and understanding of music in all its contemporary and historical diversity.

With its three outstanding departments of Ethnomusicology, Music, and Musicology, and interdepartmental program for Global Jazz Studies, the Herb Alpert School of Music aspires to educate the whole student through productive collaboration between performance and scholarship; a cross-cultural, global understanding of the art of music; and preparatory training for a broad range of careers in music after graduation.

Public concerts, lectures, symposia, master classes, and musical theater and opera productions are hallmarks of the school. Each department hosts a calendar of events open to the entire community, enriching the lives of both those on stage and those in the audience, and contributing to the quality of life in Los Angeles and beyond.
Schoenberg Music Building includes the Lani Hall (recital hall) and Schoenberg Hall (main concert hall), both fully equipped for audio recording. The building also houses the Music Library, Ethnomusicology Archive, Ethnomusicology Laboratory, Henry Mancini Media Laboratory, World Instrument Collection, and Herbie Hancock Institute of Jazz Performance, as well as numerous classrooms, practice rooms, orchestra room, band room, choral room, organ studio, and ethnomusicology performance rooms.

The Evelyn and Mo Ostin Music Center includes a high-technology recording studio, spaces for rehearsal and teaching, a café and social space for students, and an Internet-based music production center.

Departments and Programs

Students in the Ethnomusicology Department study the performance and context of music-making from a global perspective. The Music Department offers majors in Music Composition, Music Education, and Music Performance. The Musicology Department offers students a broad understanding of the history and culture of music.

The school is also home to three undergraduate minors. The Musicology minor offers undergraduates an overview of music history and the study of music. Students may select from a wide variety of undergraduate courses that range through the history of European and American music. The Music Industry minor introduces students to critical perspectives on the formative effects the music industry and music technology have on musical practices around the world. The Ethnomusicology minor gives students who are interested in the culture of music a unique opportunity to participate in a hands-on educational experience. Students perform in ensembles, explore the world’s instruments, and study global traditions.

Information regarding academic programs is available from the Office of Student Affairs, 2520 Schoenberg Music Building.

Teaching Credentials

Students interested in obtaining instructional credentials for California elementary and secondary schools should contact the Teacher Education Program, 1009 Moore Hall.

Degrees

The Herb Alpert School of Music offers the following degrees and undergraduate minors:

Ethnomusicology BA, MA, CPhil, PhD
Global Jazz Studies BA

Music BA, BM, MA, MM, CPhil, DMA, PhD
Music Composition BA
Music Education BA
Music History and Industry BA
Music Performance BA
Musicology BA, MA, CPhil, PhD

Undergraduate Minors

Ethnomusicology
Music Industry
Musicology

Undergraduate Admission

In addition to the UC undergraduate application, some departments require auditions, interviews, portfolios, or evidence of creativity. Information regarding departmental requirements is available on each department website; see the school undergraduate admission website. After the UC application has been submitted, applicants need to submit supplemental application material and should consult the individual department website for details.

Undergraduate Degree Requirements

Students must satisfy UC requirements, school requirements, and department requirements for the Bachelor of Arts degree.
Degree Requirements

University Requirements
1. Entry-Level Writing or English as a Second Language
2. American History and Institutions

School Requirements
1. Unit
2. Scholarship
3. Academic Residence
4. Writing Requirement
   Writing I
   Writing II
5. Quantitative Reasoning
6. Foreign Language
7. Diversity
8. General Education
   Foundations of Arts and Humanities
   Foundations of Society and Culture
   Foundations of Scientific Inquiry

Department Requirements
1. Preparation for the Major
2. The Major

Courses that do not satisfy specific UC, school, or department requirements are referred to as electives and can be used to meet the minimum unit requirement for graduation.

University Requirements

The University of California has two requirements that undergraduate students must satisfy in order to graduate: Entry-Level Writing or English as a Second Language, and American History and Institutions. See Degree Requirements in the Undergraduate Study chapter for details.

Students enrolled in English Composition 1A, 1B, and 2I must take each course for a letter grade.

School Requirements

There are eight requirements that must be satisfied for award of a degree.

Unit Requirement

Students must complete for credit, with a passing grade, no fewer than 180 units and no more than 216 units, of which at least 60 units must be upper-division courses (numbered 100 through 199). Credit for upper-division tutorials numbered 195 through 199 is limited to a maximum of 24 units total for a letter grade, 8 of which may be applied toward the major.

Scholarship Requirement

A 2.0 (C) grade-point average is required in all work attempted at the University of California, exclusive of courses in UCLA Extension and those graded Passed/Not Passed. A 2.0 (C) grade-point average is also required in all upper-division courses in the major taken at the University of California, as well as in all courses applied toward the general education and UC requirements.

Academic Residence Requirement

Students are in residence while enrolled and attending classes at UCLA with a declared major in the Herb Alpert School of Music. Of the last 45 units completed for the bachelor’s degree, 35 must be earned while in residence at the school. No more than 18 of the 35 units may be completed in UCLA summer sessions.

Courses offered by UCLA Extension may not be applied toward any part of the residence requirement.

Writing Requirement

Students must complete the UC Entry-Level Writing or English as a Second Language (ESL) requirement prior to completing the school writing requirement.

Students admitted to the school are required to complete a two-term writing requirement—Writing I and Writing II. The courses must be taken for letter grades, and students must receive a C or better grade in each (a C– grade is not acceptable).

Writing I. The Writing I requirement must be satisfied within the first three terms of enrollment by completing English Composition 3, 3D, 3DS, or 3SL with a C or better grade (a C– or Passed grade is not acceptable).

The Writing I requirement may also be satisfied by scoring 4 or 5 on one of the College Board Advanced Placement Examinations in English; a combination of a score of 720 or better on the SAT Reasoning Test, Writing section (last administered in January 2016) and superior performance on the English Composition 3 Proficiency Examination; completing a course equivalent to English Composition 3 with a C or better grade (a C– or Passed grade is not acceptable) taken at another institution; or scoring 5, 6, or 7 on an International Baccalaureate Higher Level Examination.

Students whose native language is not English may need to take English Composition 1A, 1B, and 2I before enrolling in a Writing I course. All courses in the sequence must be passed with a C or better grade (a C– or Passed grade is not acceptable).

Writing II. The Writing II requirement must be satisfied within the first seven terms of enrollment by completing one course from a faculty-approved list of Writing II courses and available on the student Degree Audit; see the Registrar’s Writing II requirement web page for details.
The course must be completed with a C or better grade (a C– or Passed grade is not acceptable).

Applicable Writing II courses may also fulfill preparation for the major or minor requirements and, if approved for general education (GE) credit, may fulfill a GE requirement.

Transfer students with 90 or more units who have completed the Intersegmental General Education Transfer Curriculum (IGETC) will have satisfied the Writing I, Writing II, and reciprocity requirements. No transfer student is admitted to the school without completing, with a C or better grade (a C– grade is not acceptable), a college-level writing course that Undergraduate Admission accepts as equivalent to English Composition 3.

Quantitative Reasoning Requirement

Students must demonstrate basic skills in quantitative reasoning. The requirement may be satisfied by completing one approved UCLA course (see list below) for a C or Passed or better grade (a C– or Not Passed grade is not acceptable).

The quantitative reasoning requirement may also be satisfied by achieving an SAT Reasoning Test Mathematics section score of 600 or better for exams taken January 2016 or earlier, or achieving an SAT Mathematics section score of 620 or better for exams taken March 2016 or later, or an SAT Subject Test in Mathematics score of 550 or better.

If approved for general education (GE) credit, applicable courses may also fulfill a GE requirement. Approved courses include

- Biostatistics 100A, 100B
- Life Sciences 20, 30A, 30B, 40
- Mathematics 2, 3A, 31A, 31AL
- Philosophy 31
- Political Science 6, 6R
- Program in Computing 10A, 10B, 10C
- Public Affairs 60
- Statistics 10, 12, 13

Foreign Language Requirement

Students may meet the foreign language requirement by scoring 3, 4, or 5 on the College Board Advanced Placement (AP) foreign language examination in Chinese, French, German, Italian, Japanese, or Spanish, or scoring 4 or 5 on the AP foreign language examination in Latin; presenting a UCLA foreign language proficiency examination score indicating competency through level three; or completing one college-level foreign language course equivalent to level three or above or American Sign Language 1, 2, and 3, or 8 at UCLA with a C or Passed or better grade. The foreign language requirement must be completed within the first six terms of enrollment.

International students may petition to use an advanced course in their native language for this requirement. Students whose entire secondary education has been completed in a language other than English may petition to be exempt from the foreign language requirement.

Transfer students with 90 or more units who have completed the Intersegmental General Education Transfer Curriculum (IGETC) will have satisfied the foreign language and reciprocity requirements.

Courses that may be used to fulfill this requirement are published on the Registrar’s foreign language requirement web page.

Diversity Requirement

The diversity requirement is predicated on the notion that students in music must be trained to understand the local, national, and global realities in which they make, understand, interpret, and teach music. Those realities include the multicultural, transnational, and global nature of contemporary society. To satisfy the requirement, students must complete one course from the faculty-approved list of diversity courses (available in the Schedule of Classes, through degree audits, or in the Office of Student Affairs). The course must be taken for a letter grade, and students must receive a C or better grade (a C– or Passed grade is not acceptable).

Applicable courses may also fulfill major, minor, or elective requirements and, if approved for general education (GE) credit, may fulfill a GE requirement. As such, students are not required to complete an additional course to satisfy the diversity requirement.

General Education Requirements

General education (GE) is more than a checklist of required courses. It is a program of study that reveals to students the ways that research scholars in the arts, humanities, social sciences, and natural sciences create and evaluate new knowledge; introduces students to the important ideas and themes of human cultures; fosters appreciation for the many perspectives and diverse voices that may be heard in a democratic society; and develops the intellectual skills that give students the dexterity they need to function in a rapidly changing world.

This entails the ability to make critical and logical assessments of information, both traditional and digital; deliver reasoned and persuasive arguments; and identify, acquire, and use the knowledge necessary to solve problems.
Foundations of Knowledge

General education courses are grouped into three foundational areas: Foundations of the Arts and Humanities, Foundations of Society and Culture, and Foundations of Scientific Inquiry.

Eight courses (38 units minimum) are required. A Writing II course also approved for general education may be applied toward the relevant general education foundational area.

Students who complete a year-long GE cluster series fulfill the Writing II requirement and complete nearly 50 percent of their general education requirements. Students who do not complete the year-long GE cluster series must meet with a counselor in the Office of Student Services and Enrollment Management to determine applicable GE credit.

Courses listed in more than one category can fulfill GE requirements in only one of the categories.

Foundations of the Arts and Humanities. Three 5-unit courses, one from each subgroup. Courses required to satisfy the major or other courses taken in the major field may be used to satisfy this GE requirement:

- Literary and Cultural Analysis
- Philosophical and Linguistic Analysis
- Visual and Performance Arts Analysis and Practice

Courses in this area supply perspectives and intellectual skills necessary to comprehend and think critically about our situation in the world as human beings. In particular, courses furnish the basic means to appreciate and evaluate the ongoing efforts of humans to explain, translate, and transform their diverse experiences of the world through such media as language, literature, philosophical systems, images, sounds, and performances. The courses introduce students to the historical development and fundamental intellectual and ethical issues associated with the arts and humanities and may also investigate the complex relations between artistic and humanistic expression and other facets of society and culture.

Foundations of Society and Culture. Three 5-unit courses, one from each subgroup and a third course from either subgroup:

- Historical Analysis
- Social Analysis

Courses in this area introduce students to the ways in which humans organize, structure, rationalize, and govern their diverse societies and cultures over time. Courses focus on a particular historical question, societal problem, or topic of political and economic concern in an effort to demonstrate how issues are objectified for study, how data is collected and analyzed, and how new understandings of social phenomena are achieved and evaluated.

Foundations of Scientific Inquiry. Two courses from either subgroup. If both courses are selected from the same subgroup, they must be from different departments:

- Life Sciences
- Physical Sciences

Courses in this area ensure that students gain a fundamental understanding of how scientists formulate and answer questions about the operation of both the physical and biological world. Courses also deal with some of the most important issues, developments, and methodologies in contemporary science, addressing such topics as the origin of the universe, environmental degradation, and the decoding of the human genome. Through lectures, laboratory experiences, writing, and intensive discussions, students consider the important roles played by the laws of physics and chemistry in society, biology, Earth and environmental sciences, and astrophysics and cosmology.

General Education Requirements

<table>
<thead>
<tr>
<th>Foundations of the Arts and Humanities</th>
<th>1 course</th>
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<tr>
<td>Literary and Cultural Analysis</td>
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<tr>
<td>Philosophical and Linguistic Analysis</td>
<td>1 course</td>
</tr>
<tr>
<td>Visual and Performance Arts Analysis and Practice</td>
<td>1 course</td>
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<tr>
<td>Total = 15 units minimum</td>
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<table>
<thead>
<tr>
<th>Foundations of Society and Culture</th>
<th>1 course</th>
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<tr>
<td>Historical Analysis</td>
<td></td>
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<tr>
<td>Social Analysis</td>
<td></td>
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<tr>
<td>Third course from either subgroup</td>
<td>1 course</td>
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<tr>
<td>Total = 15 units minimum</td>
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<tr>
<th>Foundations of Scientific Inquiry</th>
<th>2 courses</th>
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<tr>
<td>Life Sciences/Physical Sciences</td>
<td>2 courses</td>
</tr>
<tr>
<td>Two courses from either subgroup, if both courses are selected from the same subgroup, they must be from different departments.</td>
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<tr>
<td>Total = 8 units minimum</td>
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</table>

| Total GE                            | 8 courses/38 units minimum |

A Writing II course also approved for general education may be applied toward the relevant general education foundational area.

Foundations Course Lists. Creating and maintaining a general education curriculum is a dynamic process; consequently, courses are frequently added to the list. For the most current list of approved courses that satisfy the Foundations of Knowledge GE plan, consult with an academic counselor or see the Schedule of Classes.

Reciprocity with Other UC Campuses

Students who transfer to UCLA from other UC campuses and have met all GE requirements prior to enrolling at UCLA
are not required to complete the Herb Alpert School of Music GE requirements. Written verification from the dean at the other UC campus is required. Verification letters should be sent to UCLA Herb Alpert School of Music, Office of Student Affairs, Box 957234, Los Angeles, CA 90095-7234.

Intersegmental General Education Transfer Curriculum
Transfer students from California community colleges have the option to fulfill UCLA lower-division GE requirements by completing the Intersegmental General Education Transfer Curriculum (IGETC) prior to transfer. The curriculum consists of a series of subject areas and types of courses that have been agreed on by the University of California and the California community colleges. Although GE or transfer core courses are degree requirements rather than admission requirements, students are advised to fulfill them prior to transfer. The IGETC significantly eases the transfer process, as all UCLA GE requirements are fulfilled when students complete the IGETC courses. Students who select the IGETC must complete it entirely before enrolling at UCLA. Otherwise, they must fulfill the Herb Alpert School of Music GE requirements.

Department Requirements
Departments generally set two types of requirements that must be satisfied for award of a degree: preparation for the major (lower-division courses) and the major (upper-division courses). Preparation for the major courses should be completed before beginning upper-division work.

Preparation for the Major
A major requires completion of a set of courses known as preparation for the major. Each department sets its own preparation for the major requirements; see the Curricula and Courses chapter.

The Major
A major is composed of at least 36 units and no more than 58 units of upper-division courses.

Students must complete their major with a grade-point average of at least 2.0 (C) in all courses in order to remain in the major. Each course in the major department must be taken for a letter grade.

As changes in major requirements occur, students are expected to satisfy the new requirements insofar as possible. Hardship cases should be discussed with the department adviser, and petitions for adjustment should be submitted to the dean of the school when necessary.

Minors and Double Majors. Students may petition for a minor and/or double major on an individual basis. Students should contact the Office of Student Affairs for an outline of criteria required for the petition.

Policies and Regulations
Degree requirements are subject to policies and regulations, including the following:

Student Responsibility
Students should take advantage of academic support resources, but they are ultimately responsible for keeping informed of and complying with the rules, regulations, and policies affecting their academic standing.

Study List
Each term the study list must include from 15 to 20 units. The school has no provision for part-time enrollment. After the first term, students may petition to carry more than 20 units if they have an overall grade-point average of 3.0 (B) or better and have attained at least a 3.0 (B) average in the preceding term with all courses passed. Students should contact the Office of Student Affairs no later than the end of the second week of instruction to petition for more than 20 units.

Minimum Progress
Students are expected to complete satisfactorily at least 40 units during any three consecutive terms in residence; they are placed on probation if they fail to pass these units. Students are subject to disqualification if they fail to pass at least 32 units in three consecutive regular terms in residence.

Changing a Major
Students in good academic standing who wish to change their major may petition to do so, provided they can complete the new major within the 216-unit limit and normal time to degree (12 terms for students who entered as freshmen; six terms for students who entered as transfers). Petitions must be submitted to and approved by the department or committee in charge of the new major. Admission to certain majors may be closed or restricted; changes are normally not permitted if students are on probation or have begun their last term.

Concurrent Enrollment
Enrollment at a non-UC institution or at UCLA Extension while enrolled at UCLA is not permitted.
Credit Limitations

The following credit limitations apply to all undergraduate students enrolled in the school:

**Advanced Placement Examinations.** Credit earned through the College Board Advanced Placement (AP) Examinations may be applied toward certain UC/school requirements. Consult with a counselor in the Office of Student Affairs to determine applicable credit. Portions of AP Examination credit may be evaluated by corresponding UCLA course numbers (e.g., French 4). If students take the equivalent UCLA course, unit credit for such duplication is deducted before graduation. See the school AP table for UCLA course equivalents.

**Graduate Courses.** Undergraduate students who wish to take courses numbered in the 200 series for credit toward a specific degree requirement must petition for advance approval of the department chair and dean of the school, and must meet specific qualifications. Courses numbered in the 400 and 500 series may not be applied toward the degree.

Counseling Services

The Herb Alpert School of Music offers advising, program planning in the major and general education requirements, and individual meetings with school and departmental counselors. For counseling information, contact the Office of Student Affairs, 2520 Schoenberg Music Building, 310-825-4761.

Honors

Undergraduate students who achieve scholastic distinction may qualify for the following honors and programs:

**Dean’s Honors**

The Dean’s Honors list recognizes high scholastic achievement in any one term. The following criteria are used to note Dean’s Honors on student records: a 3.8 grade-point average (GPA) for less than 16 units of work (3.7 GPA for 16 or more units), with at least 12 letter-graded units. Students are not eligible for Dean’s Honors in any given term if they receive an Incomplete or a Not Passed (NP) grade, change a grade, or repeat a course. Dean’s Honors are automatically recorded on the transcript for the appropriate term.

**Latin Honors**

Latin Honors are awarded at graduation to students with superior grade-point averages. To be eligible, students must have completed 90 or more units for a letter grade at the University of California and must have attained an overall grade-point average (GPA) at graduation that places them in the top five percent of the school (GPA of 3.987 or better) for *summa cum laude*, the next five percent (GPA of 3.930 or better) for *magna cum laude*, or the next 10 percent (GPA of 3.860 or better) for *cum laude*. The minimum GPAs required are subject to change on an annual basis. Required GPAs in effect in the graduating year determine student eligibility. Students should contact the Office of Student Affairs or see the Registrar’s honors web page for the most current Latin honors calculations.

Graduate Study

The advanced degree programs offer graduate students unique research opportunities when combined with special resources, such as Young Research Library, Music Library special collections, and UCLA performance halls.

Fellowships, grants, and assistantships are available through the departments and the dean of the Graduate Division.

**Admission**

In addition to requiring that applicants hold a bachelor’s degree from an accredited U.S. institution or an equivalent degree of professional title from an international institution, each department in the school has limitations and additional requirements. In general, samples of creative work (auditions, portfolios, computer programs, etc.) are required. Detailed information is available on individual department websites and on program requirements for UCLA graduate degrees.

For information on the proficiency in English requirements for international graduate students, see Graduate Admission in the Graduate Study chapter.

Degree Requirements

Requirements to fulfill each degree objective vary according to the degree and the department. For complete degree requirements, see program requirements for UCLA graduate degrees.

John E. Anderson Graduate School of Management

Antonio E. Bernardo, PhD, Dean

Anderson Graduate School of Management

G415 Marion Anderson Hall

310-825-7982
In today’s rapidly changing global marketplace, it is essential that professional managers be conversant with the latest concepts and principles of management. At the UCLA John E. Anderson Graduate School of Management, which is consistently ranked among the best such schools in the nation, students prepare to become first-rate managers with both specialized skills and broad understanding of the general economic, business, and managerial environment. This background enables them to become effective and efficient directors of organizations and people whether they are in the private, public, or not-for-profit sector.

Specifically, the Anderson Graduate School of Management offers the business community a wide range of higher education programs that furnish state-of-the-art information in a variety of fields. Through its faculty, the school advances the art and science of management by engaging in fundamental and cutting-edge research in all fields of management, and by educating scholars who can continue to create this new knowledge.

Students come from diverse professional and educational backgrounds and seek equally diverse personal and professional goals. Whether they pursue the professional MBA or a PhD in Management, they graduate with a broad understanding of people and organizations and with a sound technical background in the economic and mathematical concepts of management planning and decision making.

The school offers a variety of programs leading to graduate degrees at the master’s and doctorate levels. These include a professional Master of Business Administration (MBA), Master of Science (MS) in Business Analytics, and a Master of Financial Engineering (MFE); as well as an Executive MBA program designed for working managers who are moving from specialized areas into general management, and a three-year Fully Employed MBA program for emerging managers. The school also offers a dual Global Executive MBA degree with the National University of Singapore (NUS) Business School that prepares participants for top positions in organizations around the world. A PhD in Management is also offered, as are a certificate executive program and research conferences and seminars for experienced managers.

The school offers an undergraduate minor in Accounting. It also offers an interdisciplinary undergraduate minor in Entrepreneurship in conjunction with the College of Letters and Science, designed for students interested in new business ventures, business development, and entrepreneurial ideas; see the Entrepreneurship minor for details. Several undergraduate courses in management are also offered. Enrollment in these courses, although open to all UCLA students who have completed the requisites, is limited.

**Degrees and Programs**

The Anderson Graduate School of Management offers the following degrees and undergraduate minors:

**Master of Business Administration MBA**

**Executive Master of Business Administration EMBA**

**Fully Employed Master of Business Administration FEMBA**

**Global Executive MBA for Asia Pacific GEMBA—dual degree program with National University of Singapore**

**Business Analytics MS**

**Management MS, CPhil, PhD**

**Master of Financial Engineering MFE**

**Concurrent Degree Programs**

Management MBA/Computer Science MS

Management MBA/Dentistry DDS

Management MBA/Latin American Studies MA

Management MBA/Law JD

Management MBA/Library and Information Science MLIS

Management MBA/Medicine MD

Management MBA/Nursing MSN

Management MBA/Public Health MPH

Management MBA/Public Policy MPP

Management MBA/Urban and Regional Planning MURP

**Undergraduate Minors**

Accounting

Entrepreneurship
Executive Education

Founded in 1954, UCLA Anderson Executive Education offers innovative learning solutions that focus on leadership, management, and strategy to meet the unique business objectives of individual executives and leading organizations worldwide. More than 50 custom and open-enrollment programs are offered annually to leaders of today, both on campus and wherever they are in the world: on the go, online, and on demand.

Research Centers

Eight interdisciplinary research centers supply valuable resources that support school programs: Center for Global Management (CGM); Center for Management of Enterprise in Media, Entertainment, and Sports (MEMES); Easton Technology Management Center; Harold and Pauline Price Center for Entrepreneurship and Innovation; Laurence and Lori Fink Center for Finance; Morrison Center for Marketing and Data Analytics; UCLA Anderson Forecast; and Ziman Center for Real Estate.

Outreach Programs

A wide range of outreach programs—such as the Entrepreneurship Bootcamp for Veterans with Disabilities; Leaders in Sustainability Certificate Program; Management Development for Entrepreneurs (MDE); Impact@Anderson; Office of Equity, Diversity, and Inclusion; and Riordan Programs—offer many teaching, research, and service resources to UCLA, Los Angeles, and beyond.

Jonathan and Karin Fielding School of Public Health

Ronald S. Brookmeyer, PhD, Dean

Fielding School of Public Health
16-035 Center for Health Sciences
310-825-5524
Student Affairs e-mail

The public health field is experiencing an unprecedented level of attention as the nation continues to better prepare itself for a variety of threats to its health and security. As a result, many new and exciting opportunities exist for students, faculty members, and graduates.

The field of public health strives to create healthier communities. Where medicine treats the individual, public health looks to the larger community. Those working in public health focus on efforts to assess the health of people and their environments, and develop policies and programs to protect people and help them lead healthier lives.

To achieve these goals, public health crosses many of the traditional academic disciplinary boundaries, drawing from medicine, law, public policy, economics, and biology to name a few. Making water safe to drink and air safe to breathe, controlling toxic waste, halting the spread of infectious disease, promoting the advantages of healthy lifestyles, and minimizing violence in our communities are all examples of public health in action. Increasingly public health is called on to help determine which clinical approaches to an individual health problem are best (outcomes research), and to assess and identify disparities in access to health care, quality of health care, and health status.

The UCLA Jonathan and Karin Fielding School of Public Health is among the top public health schools in the country, and offers superior public health training and real-world experience. School classrooms and laboratories are located in the Center for Health Sciences (CHS) shared with the Geffen School of Medicine, School of Dentistry, and School of Nursing, and just steps away from its science facilities and schools of engineering, law, management, and public affairs.

The school is enriched by its location in Los Angeles, where a melting pot of cultures, industries, environmental situations, and urban issues offers unparalleled opportunities for education, research, and service. Its location also supplies students and faculty members with a unique opportunity to be involved with cutting-edge health care issues, as many of the health system changes have origins in Southern California.

Students can look forward to working with acclaimed public health experts and innovators. Among its 250 faculty members are more than 15 members of the prestigious Institute of Medicine, three past presidents of the American Public Health Association, and two past presidents of the International Epidemiological Association.

The school’s 611 students are among the most talented and promising in the nation. They are a culturally diverse group—one of the most diverse of all schools of public health—representing more than 23 countries and nearly every region of the U.S. Graduates continue to make an impressive impact on the field and can be found at the forefront of all major public health efforts.

Departments

The school offers graduate programs leading to both academic and professional degrees in five departments. The Department of Biostatistics develops statistical and analytical techniques for public health use. The Department of
Community Health Sciences addresses behaviors that prevent disease and enhance health; health problems of high-risk groups (women, children, the aged, the poor, the disadvantaged, and racial and ethnic minorities); health education and promotion; public health policy; community nutrition; and international health. The Department of Environmental Health Sciences elucidates health hazards in the general environment and in the workplace. The Department of Epidemiology is concerned with the nature, extent, and distribution of disease and health in populations. The Department of Health Policy and Management deals with the organization, financing, delivery, quality, and distribution of health care services. The school also administers an interdepartmental degree program in molecular toxicology. See the Curricula and Courses chapter for more information on each department.

Degrees and Programs
The Fielding School of Public Health offers the following degrees and undergraduate minor:
- Biostatistics MS, PhD
- Community Health Sciences MPH-HP, MS, PhD
- Environmental Health Sciences MS, PhD
- Epidemiology MS, PhD
- Health Policy and Management EMPH, MS, PhD
- Molecular Toxicology PhD
- Public Health MPH, DrPH

Articulated Degree Programs
- Public Health MPH/Latin American Studies MA
- Public Health MPH/Medicine MD

Concurrent Degree Programs
- Community Health Sciences MPH/Urban and Regional Planning MURP
- Environmental Health Sciences MPH/Urban and Regional Planning MURP
- Public Health MPH/African Studies MA
- Public Health MPH/Asian American Studies MA
- Public Health MPH/Law JD
- Public Health MPH/Management MBA
- Public Health MPH/Public Policy MPP
- Public Health MPH/Social Welfare MSW

Undergraduate Minor
Public Health

Admission
Admission criteria established by the UCLA Graduate Division require a bachelor’s degree from a regionally accredited institution comparable in standard and content to a bachelor’s degree from the University of California. A scholastic grade-point average of B (3.0 on a 4.0 scale) or better is required—or its equivalent if the letter grade system is not used—for the last 60 semester units or last 90 quarter units of undergraduate study and in any postbaccalaureate study. Additional requirements for International Applicants are explained in the Graduate Study chapter. Applicants must submit their application to both the centralized Schools of Public Health Application Service (SOPHAS) and UCLA Graduate Division. For additional admission requirements, see the school application web page.

Degree Requirements
Specific degree requirements vary according to the department and program. Refer to program requirements for UCLA graduate degrees.

Research Centers
The field of public health addresses a wide range of issues, making it a natural for interdisciplinary collaboration. UCLA faculty members and students reach beyond traditional academic boundaries to promote cooperative exchange across disciplines. The following interdisciplinary centers are sponsored by or associated with the Fielding School of Public Health.
Biobehavioral Assessment and Research Center

The Biobehavioral Assessment and Research Center (BARC) promotes research on high impact science that the National Institute of Health (NIH) has identified as high-priority areas of public health research. With a team of multidisciplinary investigators, BARC utilizes and develops innovative biobehavioral and technological approaches that integrate behavioral measures/markers into intervention studies, prevention trials, and clinical science. BARC also supports incorporation of clinical and basic biomarkers into behavioral research and prevention science.

Bixby Center on Population and Reproductive Health

The Bixby Center on Population and Reproductive Health was established in 2001 at the Fielding School as the result of a generous gift from the Fred H. Bixby Foundation, and has grown since then with the support from additional Bixby Foundation gifts. The center promotes and supports research, training, and applied public health in the areas of population, reproductive health, and family planning. The principal focus is on reproductive health issues in developing countries, where population growth rates remain high and reproductive health services are poor or inaccessible. The center also works in reproductive health-related issues in the U.S.

Center for Cancer Prevention and Control Research

The Center for Cancer Prevention and Control Research is a joint program of the Fielding School and the Geffen School of Medicine’s Jonsson Comprehensive Cancer Center. Since its inception in 1976, the center has been recognized in Los Angeles community, nationally, and internationally. It conducts rigorous peer-reviewed research in two major program areas—the Healthy and At-Risk Populations Program and the Patients and Survivors Program.

The Healthy and At-Risk Populations Program focuses on research in primary prevention and screening/early detection among healthy populations and persons at increased risk for developing cancer. Its research portfolio includes cancer epidemiology; gene-environment interaction; tobacco control; nutrition and exercise; and breast, cervix, prostate, and colon cancer screenings; as well as risk counseling and genetic testing of high-risk populations. The Patients and Survivors Program has as its major goal the reduction in avoidable morbidity and mortality among adult and pediatric patients with cancer and long-term survivors of cancer.

Center for Environmental Genomics

The Center for Environmental Genomics was established in May 2003 in partnership with the Jonsson Comprehensive Cancer Center. The goal of the center is to bring together experts from a variety of fields—including cancer, environmental health, epidemiology, biostatistics, human genetics, pathology, and pharmacology—to investigate the molecular mechanisms by which environmental agents, such as air pollutants and radiation, interact with genetic predisposing factors to cause disease. A better understanding of these processes paves the way not only for genetic drug therapies, but also for targeted public health efforts to reduce environmental exposures in high-risk populations. Environmental genomics helps prevent diseases rather than waiting to cure them once they have occurred.

Center for Global and Immigrant Health

The last several years have seen major transformations in global public health, requiring major expansion and reconstruction of the international public health work force. Many emerging health problems require timely and sustained research efforts and require application of the best scientific knowledge and focused training and continuing education for the global public health work force.

The UCLA Center for Global and Immigrant Health was established in 2008. The UCLA Center for Global and Immigrant Health was established in 2008. The center includes faculty from all of the departments in the Fielding School of Public Health as well as the schools of medicine, dentistry, and nursing, and the California Center for Population Research, all of whom have research or teaching interests in global and/or immigrant health. Participating faculty have active research collaborations in more than 50 countries throughout the world, and several work both with immigrant communities in California and in the countries of origin of these communities. The center offers a Certificate in Global Health available to students in any UCLA degree-granting graduate and professional program.

Center for Health Advancement

The UCLA Center for Health Advancement supplies enhanced analysis and evidence-based information to help policymakers decide which policies and programs can best improve health and reduce health disparities. The center analyzes a wide range of timely health improvement opportunities, identifying those supported by strong evidence. It presents and disseminates the results of these analyses in plain language to those who make and influence public- and private-sector policies and programs, and offers training and technical assistance to facilitate implementation of recommended approaches.
The center brings together faculty from multiple departments of the Fielding School and other UCLA schools with a wide range of subject matter and methodological expertise, including expertise in nonhealth sectors such as education, transportation, housing, environmental protection, community planning, agriculture, public welfare, and economics. It has strong collaborations with government public health agencies, foundations, academic institutions, and other not-for-profit organizations. Within the health sector, its work is focused on how alternative investments to wasteful expenditures in health care can yield greater returns.

**Center for Health Policy Research**

The UCLA Center for Health Policy Research is one of the nation’s leading health policy research centers and the premier source of health policy information for California. It was established in 1994 to apply the expertise of UCLA faculty members and researchers to meet national, state, and local community needs for health-policy-related research and information, and to accomplish three missions: conduct research on national, state, and local health policy issues; offer public service to policymakers and community leaders; and offer educational opportunities for graduate students and postdoctoral fellows.

Sponsored by the Fielding School and the Luskin School of Public Affairs, the center offers a collaborative health policy research environment for the leading professional schools and academic departments of UCLA. One major project is the California Health Interview Survey (CHIS), one of the largest health surveys in the nation. The center also sponsors major public service programs supported by extramural grants.

**Center for Occupational and Environmental Health**

The California State Legislature mandated that the Center for Occupational and Environmental Health (COEH) be formed in 1978, when a group of chemical workers became sterile from exposure to the pesticide DBCP, a known carcinogen and reproductive toxin. With branches in northern and southern California, COEH trains occupational and environmental health professionals and scientists, conducts research, and offers services through consultation, education, and outreach. The centers constitute the first state-supported institutions to develop new occupational and environmental health leadership in the U.S.

The UCLA COEH branch is housed in the Center for Health Sciences and involves the schools of Public Health, Medicine, and Nursing. Specific COEH programs within the Fielding School include environmental chemistry, occupational/environmental epidemiology, occupational/environmental medicine, occupational ergonomics, occupational hygiene, toxicology, gene-environment interactions, psychosocial factors in the work environment, occupational health education, and pollution prevention.

**Center for Healthier Children, Families, and Communities**

The Center for Healthier Children, Families, and Communities (CHCFC) was established in 1995 to address some of the most challenging health and social problems facing children and families. The center’s mission is to improve society’s ability to provide children with the best opportunities for health and well-being, and the chance to assume productive roles within families and communities.

Through a unique interdisciplinary partnership—between UCLA departments including Psychology; schools including education, law, medicine, nursing, public affairs, and public health; and providers, community agencies, and affiliated institutions—a critical mass of expertise has been assembled. This allows CHCFC to conduct activities in five major areas: child health and social services; applied research; health and social service provider training; public policy research and analysis; and technical assistance and support to community providers, agencies, and policymakers.

**Center for Public Health and Disasters**

The Center for Public Health and Disasters was established in 1997 to address critical issues faced when a disaster impacts a community. The center promotes interdisciplinary efforts to reduce the health impacts of domestic, international, natural, and human-induced disasters. It facilitates dialog between public health and medicine, engineering,
physical and social sciences, and emergency management. This unique philosophy is applied to the education and training of practitioners and researchers, collaborative interdisciplinary research, and service to the community. The multidisciplinary center staff and participating faculty members have backgrounds that include emergency medicine, environmental health sciences, epidemiology, gerontology, health services, social work, sociology, urban planning, and public health.

The center is one of 15 Academic Centers for Public Health Preparedness funded by the Centers for Disease Control and Prevention. The goal of these national centers is to improve competencies of front-line workers in public health to respond to public health threats.

### Center for the Study of Racism, Social Justice, and Health

The **Center for the Study of Racism, Social Justice, and Health** is a multidisciplinary, collaborative research center housed in the Community Health Sciences Department leading the nation in conducting rigorous, community-engaged research to identify, investigate, and explain how racism and other social inequalities may influence the health of diverse local, national, and global populations.

The center is distinguished from other disparities-related research units at UCLA by its primary focus on the health implications of racism for diverse populations. Public health is both an academic discipline and an applied one. There-fore, the center encourages the translation of research findings for use by public health professionals, community organizations, and policy makers in their ongoing health equity efforts. Many center affiliates are working to identify, investigate, and explain the specific mechanisms by which various forms of racism may produce local, national, or global health inequities. Others are advancing critical racial theories or building community partnerships to guide their anti-racism, health-equity work. The center supports a community of scholars engaged in cutting-edge research, scholarship, public health practice, and community engagement to tackle questions such as how racism affects the physical and mental health of diverse populations, what tools are available to improve the rigor with which researchers study racism and its relationship to health inequities, which intervention strategies most effectively address contribution of racism to specific health inequities, and what are effective ways to teach public health students about racism. Affiliates represent disciplines of public health, history, medicine, urban planning, sociology, and other areas.

### Southern California NIOSH Education and Research Center

The purposes of the **Southern California NIOSH Education and Research Center** are to educate professionals in the various disciplines of occupational health and safety; offer continuing education for professionals and others in occupational safety and health fields; proliferate occupational health and safety activity through outreach to regional institutions and organizations; foster research on issues important to occupational health and safety; be an occupational health and safety resource to organizations and agencies that need its expertise; facilitate marshaling of community resources to address and solve occupational health and safety problems; respond through educational programs and research to the changing range of occupational safety and health problems; and educate nonacademic stakeholders including business, labor, and vulnerable worker populations.

The characteristics of the center are embodied in a coordinated, interdisciplinary set of professional education, continuing education, research, and outreach activities that have a positive impact on the regional and national occupational health and safety practice.

The center has five programs at UCLA, one at UC Irvine, and two centerwide programs. The UCLA programs are **Industrial Hygiene, Occupational and Environmental Health Nursing**, **Center Administration and Planning**, **Continuing Education**, and **Outreach**. UC Irvine hosts the **Occupational Medicine Program**.

### UCLA Center for Prevention Research

The **UCLA Center for Prevention Research** conducts prevention research that addresses the needs of children, adolescents, young adults, and their families. The center is a partnership of the Fielding School, Geffen School of Medicine Pediatrics Department, and a wide range of community partners. The center is innovative in its approach to community service, partnering with ethnically and economically diverse communities in Los Angeles County to identify opportunities for the center to provide technical support to community groups for program implementation and assessment. In addition, the center has partnerships with the Los Angeles Unified School District, Los Angeles County Department of Health Services, and other local groups.

### UCLA Kaiser Permanente Center for Health Equity

Academic studies and current events have converged to highlight the magnitude of potentially preventable health
disparities among various population groups, and the urgency of addressing these disparities. The UCLA Kaiser Permanente Center for Health Equity identifies, investigates, and addresses these differences in health status and disease burden. A key feature of the center is its heavy focus on community-based intervention research to mitigate observed disparities.

The center aims to advance understanding of health disparities across the lifespan and to foster multidisciplinary research to improve the health of underserved communities. With focus on Los Angeles county, the center facilitates community and academic partnerships in research, trains new investigators in health disparities research, and assists community partners in implementing effective programs and advocating for effective policies to reduce disparities. The center also endeavors to erode the barriers preventing more effective collaboration with local health departments and other key community partners engaged in the practice of public health. It is a collaborative center without walls that includes associates from academia, government, foundations, and private/nonprofit organizations.

**World Policy Analysis Center**

The World Policy Analysis Center aims to improve the quantity and quality of comparative data available to policymakers, citizens, civil society, and researchers around the world on policies affecting human health, development, well-being, and equity. To date, the research team has gathered detailed information on public policies in all UN member states—including labor laws, poverty reduction policies, education policies, and constitutional rights—with the goals of increasing access to this data and translating research findings into policies and programs at the global, national, and local levels. The center is committed to enhancing global health and public policy research and policy capacity across universities, governments, and international organizations.

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**Meyer and Renee Luskin School of Public Affairs**

**Gary M. Segura, PhD, Dean**

Luskin School of Public Affairs
3250 Public Affairs Building
310-206-8858

Founded in 1994, the UCLA Meyer and Renee Luskin School of Public Affairs incorporates best practices in scholarship, research, and teaching in the fields of policymaking, social work, and urban and regional planning. The unique intersection of these disciplines within one school allows for academic cross-collaboration, and a graduate and undergraduate education that values perspectives at both the macro- and micro-organizational levels. Graduates of the master’s and doctorate degree programs are well prepared to take leadership roles and effect change as practitioners, researchers, and policymakers in public, private, and nongovernmental sectors. The undergraduate major offers students a rigorous conceptual and empirical foundation that prioritizes capacity for action by students exhibiting high motivations for public service and social change. Faculty members are actively engaged in research that addresses pressing national and regional issues including immigration, drug policy, prison reform, health care financing, transportation and the environment, national security, economic development, and the aging U.S. and world population.

**Departments**

The school comprises three academic departments—Public Policy, Social Welfare, and Urban Planning—and faculty members from such diverse disciplines as economics, geography, history, law, management, and political science. The school trains policy professionals, planners, and social workers for public, private, and nongovernment service; conducts research on significant regional, national, and international issues with a strong interdisciplinary and cross-cultural focus; and acts as a convener and catalyst for public dialog that engages people locally, nationally, and internationally.

**Degrees and Programs**

The Luskin School of Public Affairs offers the following degrees and undergraduate minors:

- Public Affairs BA
- Public Policy MPP
- Social Welfare MSW, PhD
- Urban and Regional Planning MURP
- Urban Planning PhD

**Concurrent Degree Programs**

- Public Policy MPP/Law JD
- Public Policy MPP/Management MBA
- Public Policy MPP/Medicine MD
- Public Policy MPP/Public Health MPH
- Public Policy MPP/Social Welfare MSW
- Social Welfare MSW/Asian American Studies MA
Social Welfare MSW/Law JD
Social Welfare MSW/Public Health MPH
Urban and Regional Planning MURP/Architecture MArch
Urban and Regional Planning MURP/Latin American Studies MA
Urban and Regional Planning MURP/Law JD
Urban and Regional Planning MURP/Management MBA
Urban and Regional Planning MURP/Public Health MPH

Undergraduate Minors

Gerontology
Public Affairs
Urban and Regional Studies

Obtain brochures about the school undergraduate programs from the department offices, 3343 Public Affairs Building, or see school minors.

The school also offers a wide array of undergraduate courses in public affairs. Enrollment in these courses is open to all undergraduate students during the second enrollment pass. Most classes are restricted to students pursuing the BA in Public Affairs during the first pass.

Undergraduate Admission

Admission as a Freshman

Freshmen are admitted with a declared premajor in the College of Letters and Science. See the Curricula and Courses chapter for information on applying to the major.

Admission as a Junior

Transfer students are admitted directly to the Luskin School of Public Affairs.

Undergraduate Degree Requirements

Students must satisfy UC requirements, school requirements, and major requirements for the Bachelor of Arts degree.

University Requirements

The University of California has two requirements that undergraduate students must satisfy to graduate: Entry-Level Writing or English as a Second Language, and American History and Institutions. Students who do not satisfy the Entry-Level Writing requirement prior to enrollment must pass an approved course or other program prescribed by their UC campus of residence. Only after satisfying the Entry-Level Writing requirement can they take an English composition course for transfer credit after enrolling at UCLA. See Degree Requirements in the Undergraduate Study chapter for details.

School Requirements

There are eight requirements that must be satisfied for the award of the degree.

Unit Requirement

Students must satisfactorily complete for credit a minimum of 180 units for the bachelor’s degree. At least 60 of the 180 units must be upper-division courses numbered 100 through 199. A maximum of 216 units is permitted. Students with Advanced Placement Examination or International Baccalaureate Examination (transfer) credit may exceed the unit maximum by the amount of that credit.

After 216 quarter units, enrollment may not normally be continued in the school without special permission from the dean.

Scholarship Requirement

Students must earn at least a 2.0 (C) grade-point average (GPA) in all courses undertaken at UCLA to receive a bachelor’s degree.

Students must also earn a 2.0 GPA in the major and satisfy both the course and scholarship requirements for the major, including preparation for the major.

Academic Residence Requirement

Students are in residence while enrolled and attending classes at UCLA with a declared major in the Luskin School of Public Affairs. Of the last 45 units completed for the bachelor’s degree, 35 units including the final 12 units must be
Writing Requirement

Students must complete the UC Entry-Level Writing or English as a Second Language (ESL) requirement prior to completing the school writing requirement.

Students admitted to the school are required to complete a two-term writing requirement—Writing I and Writing II. Two courses in English composition are required for graduation. Both courses must be taken for letter grades, and students must receive a C or better grade in each (a C– grade is not acceptable).

Writing I. The Writing I requirement must be satisfied within the first three terms of enrollment by completing English Composition 3, 3D, 3DS, or 3SL with a C or better grade (a C– or Passed grade is not acceptable).

The Writing I requirement may also be satisfied by scoring 4 or 5 on one of the College Board Advanced Placement Examinations in English; a combination of a score of 720 or better on the SAT Reasoning Test, Writing section (last administered in January 2016) and superior performance on the English Composition 3 Proficiency Examination; completing a course equivalent to English Composition 3 with a C or better grade (a C– or Passed grade is not acceptable) taken at another institution; or scoring 5, 6, or 7 on an International Baccalaureate Higher Level Examination.

Students whose native language is not English may need to take English Composition 1A, 1B, and 2I before enrolling in a Writing I course. All courses in the sequence must be passed with a C or better grade (a C– or Passed grade is not acceptable).

Qualifying examination scores and courses are determined by the school Faculty Executive Committee.

Writing II. The Writing II requirement must be satisfied within seven terms of enrollment by completing one course from a faculty-approved list of Writing II courses; see the Registrar’s Writing II requirement web page for details. The course must be completed with a C or better grade (a C– or Passed grade is not acceptable).

Applicable Writing II courses may also fulfill preparation for the major requirements and, if approved for general education (GE) credit, may fulfill a GE requirement.

Transfer students with 90 or more units who have completed the Intersegmental General Education Transfer Curriculum (IGETC) will have satisfied the Writing I, Writing II, and reciprocity requirements. No transfer student is admitted to the school without completing, with a C or better grade (a C– or Passed grade is not acceptable), a college-level writing course that Undergraduate Admission accepts as equivalent to English Composition 3.

Quantitative Reasoning Requirement

The quantitative reasoning requirement may be satisfied by completing one approved UCLA course (see list below) or an equivalent course within the first seven terms of enrollment. The course must be taken for a letter grade, and students must receive a C or better grade (a C– grade is not acceptable).

The requirement may also be satisfied by achieving an SAT Reasoning Test Mathematics Section score of 600 or better for exams taken January 2016 or earlier, or achieving an SAT Mathematics section score of 620 or better for exams taken
March 2016 or later, or an SAT Subject Test in Mathematics score of 550 or better, or an ACT Mathematics Test score of 26 or better. Approved UCLA courses and examinations, and qualifying scores, are determined by the school Faculty Executive Committee.

Applicable courses may also fulfill preparation for the major requirements and, if approved for general education (GE) credit, may fulfill a GE requirement.

Transfer students with 90 or more units who have completed the Intersegmental General Education Transfer Curriculum (IGETC) will have satisfied the quantitative reasoning and reciprocity requirements. No transfer student is admitted to the school without completing, with a C or better grade (a C– grade is not acceptable), a college-level quantitative reasoning course that Undergraduate Admission accepts as equivalent to those approved by the school Faculty Executive Committee. Approved courses include

• Biostatistics 100A, 100B
• Life Sciences 20, 30A, 30B, 40
• Mathematics 2, 3A, 31A, 31AL
• Philosophy 31
• Political Science 6, 6R
• Program in Computing 10A, 10B, 10C
• Public Affairs 60
• Statistics 10, 12, 13

Foreign Language Requirement

The foreign language requirement may be satisfied by one of the following methods: scoring 3, 4, or 5 on the College Board Advanced Placement (AP) foreign language examination in Chinese, French, German, Italian, Japanese, or Spanish, or scoring 4 or 5 in Latin; presenting a UCLA foreign language departmental examination score indicating competency through level three; or completing a college-level foreign language course equivalent to level three or above at UCLA with a C or Passed or better grade.

Transfer students with 90 or more units who have completed the Intersegmental General Education Transfer Curriculum (IGETC) will have satisfied the foreign language and reciprocity requirements. Courses that may be used to fulfill this requirement are published on the Registrar’s foreign language requirement web page.

Diversity Requirement

The diversity requirement may be satisfied by completing one course from the faculty-approved list of courses. Courses used to satisfy the diversity requirement are approved by the school Faculty Executive Committee. The course must be taken for a letter grade, and students must receive a C or better grade (a C– grade is not acceptable). Applicable courses may also fulfill major, minor, or elective requirements and, if approved for general education (GE) credit, may fulfill a GE requirement. A list of approved courses is available in the Schedule of Classes.

General Education Requirements

General education (GE) is more than a checklist of required courses. It is a program of study that reveals to students the ways that research scholars in the arts, humanities, social sciences, and natural sciences create and evaluate new knowledge; introduces students to the important ideas and themes of human cultures; fosters appreciation for the many perspectives and diverse voices that may be heard in a democratic society; and develops the intellectual skills that give students the dexterity they need to function in a rapidly changing world.

This entails the ability to make critical and logical assessments of information, both traditional and digital; deliver reasoned and persuasive arguments; and identify, acquire, and use the knowledge necessary to solve problems.

Applicable courses may also fulfill major, minor, or elective requirements and, if approved for diversity or writing, may fulfill the diversity requirement and/or Writing II requirement.

Foundations of Knowledge

General education courses are grouped into three foundational areas: Foundations of the Arts and Humanities, Foundations of Society and Culture, and Foundations of Scientific Inquiry.

Ten courses (48 units minimum) are required. GE-approved Writing II courses may fulfill an appropriate foundational area. See the foundational area descriptions below for a breakdown of courses required.

Students who complete a year-long GE cluster series fulfill the Writing II requirement, complete 40 percent of their general education requirements, and receive laboratory/demonstration credit where appropriate.

Courses listed in more than one category can fulfill GE requirements in only one of the categories.

Foundations of the Arts and Humanities. Three 5-unit courses, one from each subgroup:

• Literary and Cultural Analysis
• Philosophical and Linguistic Analysis
• Visual and Performance Arts Analysis and Practice

Courses in this area supply perspectives and intellectual skills necessary to comprehend and think critically about our situation in the world as human beings. In particular,
courses furnish the basic means to appreciate and evaluate the ongoing efforts of humans to explain, translate, and transform their diverse experiences of the world through such media as language, literature, philosophical systems, images, sounds, and performances. Courses introduce students to the historical development and fundamental intellectual and ethical issues associated with the arts and humanities, and may also investigate the complex relations between artistic and humanistic expression and other facets of society and culture.

**Foundations of Society and Culture.** Three 5-unit courses, one from each subgroup and a third course from either subgroup:

- Historical Analysis
- Social Analysis

Courses in this area introduce students to the ways in which humans organize, structure, rationalize, and govern their diverse societies and cultures over time. Courses focus on a particular historical question, societal problem, or topic of political and economic concern in an effort to demonstrate how issues are objectified for study, how data is collected and analyzed, and how new understandings of social phenomena are achieved and evaluated.

**Foundations of Scientific Inquiry.** Three courses, one from each subgroup and a third course from either subgroup. One 5-unit course from each subgroup must include either laboratory/demonstration or Writing II credit. For students entering fall quarter 2019 through spring quarter 2021, the laboratory requirement is reduced to one 5-unit course from either subgroup. Other courses in the subgroups may be 4 units:

- Life Sciences
- Physical Sciences

Courses in this area ensure that students gain a fundamental understanding of how scientists formulate and answer questions about the operation of both the physical and biological world. Courses also deal with some of the most important issues, developments, and methodologies in contemporary science, addressing such topics as the origin of the universe, environmental degradation, and the decoding of the human genome. Through lectures, laboratory experiences, writing, and intensive discussions, students consider the important roles played by the laws of physics and chemistry in society, biology, Earth and environmental sciences, and astrophysics and cosmology.

**Foundations Course Lists.** Creating and maintaining a general education curriculum is a dynamic process; consequently, courses are frequently added to the list. For the most current list of approved courses that satisfy the Foundations of Knowledge GE plan, contact an academic adviser or see the Schedule of Classes.

### General Education Requirements

<table>
<thead>
<tr>
<th>Section</th>
<th>Courses</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Foundations of the Arts and Humanities</strong></td>
<td>Literary and Cultural Analysis</td>
<td>1 course</td>
</tr>
<tr>
<td></td>
<td>Philosophical and Linguistic Analysis</td>
<td>1 course</td>
</tr>
<tr>
<td></td>
<td>Visual and Performance Arts Analysis and Practice</td>
<td>1 course</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>15 units</strong></td>
</tr>
<tr>
<td><strong>Foundations of Society and Culture</strong></td>
<td>Historical Analysis</td>
<td>1 course</td>
</tr>
<tr>
<td></td>
<td>Social Analysis</td>
<td>1 course</td>
</tr>
<tr>
<td></td>
<td>Third course from either subgroup</td>
<td>1 course</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>15 units</strong></td>
</tr>
<tr>
<td><strong>Foundations of Scientific Inquiry</strong></td>
<td>Life Sciences</td>
<td>2 courses</td>
</tr>
<tr>
<td></td>
<td>Physical Sciences</td>
<td>2 courses</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>17 units</strong></td>
</tr>
<tr>
<td><strong>Visual and Performance Arts Analysis and Practice</strong></td>
<td>In each subgroup, one of the two courses must be 5 units and carry either laboratory/demonstration or Writing II credit. For students entering fall quarter 2019 through spring quarter 2021, the laboratory requirement is reduced to one 5-unit course from either subgroup. Other courses in the subgroups may be 4 units.</td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td><strong>18 units minimum</strong> (17 min. fall 2019–spring 2021)</td>
</tr>
<tr>
<td><strong>Total GE</strong></td>
<td></td>
<td><strong>10 courses/48 units minimum</strong></td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>(10 courses/47 units minimum F19-S21)</strong></td>
</tr>
</tbody>
</table>

### Reciprocity with Other UC Campuses

Students who transfer to UCLA from other UC campuses and have met all GE requirements prior to enrolling at UCLA are not required to complete the school GE requirements. Written verification from the dean at the other UC campus is required. Consult with a school counselor regarding eligibility for this option.

### Intersegmental General Education Transfer Curriculum

Transfer students from California community colleges have the option to fulfill UCLA lower-division GE requirements by completing the Intersegmental General Education Transfer Curriculum (IGETC) prior to transfer. The curriculum consists of a series of subject areas and types of courses that have been agreed on by the University of California and the California community colleges. Although GE or transfer core courses are degree requirements rather than admission requirements, students are advised to fulfill them prior to transfer. The IGETC significantly eases the transfer process, as all GE requirements are fulfilled when students complete the IGETC courses.

### Major Requirements

Two types of requirements must be satisfied for the award of a degree: preparation for the major (lower-division
Preparation for the Major

Admission to the major requires completion of a set of courses known as preparation for the major. Applicants are admitted to premajor status until requisite courses are satisfactorily completed. See the Curricula and Courses chapter.

The Major

A major consists of a group of coordinated upper-division courses and shall be designated as schoolwide, departmental, interdepartmental, or individual. Each course applied toward the major and preparation for the major must be taken for a letter grade unless otherwise stipulated.

A major consists of a minimum of 40 upper-division units.

Students must complete their major with a scholarship grade-point average of at least 2.0 (C) in all courses in order to remain in the major.

As changes in major requirements occur, students are expected to satisfy the new requirements insofar as possible. Petitions for adjustment should be submitted to the dean of the school in hardship cases.

See the Curricula and Courses chapter for more details.

Minors

Students may petition for a minor offered by the school or one offered outside the school, provided they can complete the requirements within 216 units.

As changes in minor requirements occur, students are expected to satisfy the new requirements insofar as possible unless they have completed 50 percent of the required coursework for the minor at the time the new requirements go into effect. Petitions for adjustment should be submitted to the undergraduate program chair for a departmental minor and to the dean for a schoolwide minor.

For a list of minors and specializations, see Undergraduate Minors and Specializations; descriptions are in the Curricula and Courses chapter.

Policies and Regulations

Degree requirements are subject to policies and regulations, including the following:

Student Responsibility

Students should take advantage of academic support resources, but they are ultimately responsible for keeping informed of and complying with the rules, regulations, and policies affecting their academic standing.

Study List

The study list is a record of classes that a student is taking during a particular term. Each term, the study list must include from 12 to 19 units. After the first term, students may petition to enroll in more than 19 units if they have an overall grade-point average of 3.0 (B) and attained at least a 3.0 (B) grade-point average the preceding term with all courses passed.

First-term transfer students from any other UC campus may carry excess units on the same basis as students who have completed one or more terms at UCLA; however, they are not encouraged to do so.

Minimum Progress

Students are expected to complete satisfactorily at least 36 units in any three consecutive terms while in residence; they are placed on probation if they fail to pass these units. They are subject to dismissal if they fail to pass at least 32 units in three consecutive regular terms while in residence.

Changing a Major

Students in good academic standing who wish to change their major may petition to do so provided they can complete the new major within the 216-unit limit and are on track to graduate on time. Petitions must be submitted to and approved by the department or committee in charge of the new major. Admission to certain majors may be closed or restricted; changes are normally not permitted if students are on probation or have begun their last term.

Students who fail to attain a grade-point average of 2.0 (C) in preparation for the major or major courses may be denied the privilege of entering or continuing in that major.

Re-entering Students and Their Majors

Students returning to UCLA to resume their studies after an absence of several years may find their previous major area of study is no longer available. They must select a current major in which to complete their studies. Consult with an academic adviser for assistance.

Concurrent Enrollment

Enrollment at a non-UC institution or UCLA Extension while enrolled at UCLA is not permitted except in extraordinary circumstances. No credit is given for courses taken concurrently elsewhere without the approval of the school.
Credit Limitations

The following credit limitations apply to all undergraduate students. In many cases, units are not deducted until the final term before graduation. Students with questions should consult with an academic adviser.

Transfer students with credit from other institutions (advanced standing credit) receive a Degree Audit from Undergraduate Admission indicating the transferable units from former institutions; however, the following credit limitations may reduce the total number of transferred units that apply toward the degree in the school. Consult with an adviser about these limitations.

Upper-Division Tutorials. No more than 8 units of credit may be taken per term in upper-division tutorials numbered 195 through 199. The total number of units allowed in such courses for a letter grade is 32; see the specific restrictions of each department.

Graduate Courses. Undergraduate students who wish to take courses numbered in the 200 series for credit toward a specific degree requirement must petition for advance approval of the department chair and the dean of the school. Courses numbered in the 300, 400, and 500 series may not be applied toward the degree.

Academic Advising Services

The Luskin School of Public Affairs offers advising, program planning in the major and general education requirements, and individual meetings with school and departmental counselors. For counseling information, contact the Undergraduate Program Student Services Office, 3343 Public Affairs Building.

Honors

Undergraduate students who achieve scholastic distinction may qualify for the following honors and programs:

Dean’s Honors

The Dean’s Honors list recognizes high scholastic achievement in any one term. The following criteria are used to note Dean’s Honors on student records: a 3.75 grade-point average (GPA) in any one term, with at least 12 letter-graded units; or a 3.66 GPA and at least 56 grade points during the term. Students are not eligible for Dean’s Honors in any given term if they receive an Incomplete or a Not Passed (NP). Dean’s Honors are automatically recorded on the transcript for the appropriate term.

Latin Honors

Students who have achieved scholastic distinction may be awarded the bachelor’s degree with Latin honors. To be eligible, students must have completed 90 or more units for a letter grade at the University of California and must have attained an overall grade-point average at graduation that places them in the top five percent of school graduates (3.936 GPA or better) for summa cum laude, the next five percent for (3.888 GPA or better) magna cum laude, or the next 10 percent (3.782 GPA or better) for cum laude. Coursework taken on the Education Abroad Program is applied toward Latin honors at graduation. The minimum GPAs required are subject to change on an annual basis. Required GPAs in effect in the graduating year (fall, winter, spring, summer) determine student eligibility. Students should consult their Degree Audits, or the Registrar’s Latin honors web page for the most current Latin honors calculations.

Graduate Study

Admission

In addition to requiring that applicants hold a bachelor’s degree from an accredited U.S. institution or an equivalent degree or professional title from an international institution, each department in the school has limitations and additional requirements. Individuals interested in concurrent degrees must be admitted to both programs. Detailed information can be found in program requirements for UCLA graduate degrees.

For information on the proficiency in English requirements for international graduate students, see Graduate Admission in the Graduate Study chapter.

Degree Requirements

Requirements to fulfill each degree objective vary according to the degree and the department. For complete degree requirements, see program requirements for UCLA graduate degrees.

Research Centers

The school houses a number of research centers where faculty members from across campus pursue issues of mutual interest. In addition to their focus on practical policy problems, the research centers also offer opportunities for student financial aid in the form of research assistant positions, grants, and fellowships.
Institute on Inequality and Democracy

The Institute on Inequality and Democracy, organized in 2016, advances radical democracy in an unequal world through research, critical thought, and alliances with social movements and racial justice activism. Institute programs and projects convene multiple disciplines, narrative forms, and styles of scholarship and practice, while focusing on four research priorities: housing justice, predatory financialization, policing and incarceration, and decolonizing the university. The Institute aims to analyze and transform the divides and disposessions of our times, in the university and in our cities, across the global south and global north.

Luskin Center for Innovation

The Luskin Center for Innovation (LCI) conducts rigorous research and timely outreach that informs environmental policies for the health of people and the planet. Center faculty, staff, and graduate student researchers evaluate existing and proposed environmental policies to assess their effectiveness, equity impacts, and potential to spur innovation. The center then shares research findings with community leaders and policymakers, who use LCI research to design evidence-based environmental policies. The center often focuses on California, the world’s fifth-largest economy, to support a model of environmental leadership that is relevant globally. Research programs include climate, energy, environmental equity, transportation, urban greening, and water—all linked by the theme of informing effective and equitable solutions to the environmental challenges of our time.

Latino Policy and Politics Initiative

The Latino Policy and Politics Initiative (LPPI) is a comprehensive think tank that addresses the most critical domestic policy challenges facing Latinos and other communities of color in states and localities across the U.S. The initiative leverages UCLA’s cross-disciplinary strengths to create an enterprise-wide home for Latino social policy with expertise in over a dozen issue areas including civil rights, criminal justice, educational equity, health access, and voting and civic participation. The initiative fosters innovative research, leverages policy-relevant expertise, drives civic engagement, and nurtures a leadership pipeline to propel viable policy reforms that expand opportunity for all Americans.

Center for Policy Research on Aging

The Center for Policy Research on Aging (CPRA) was formed to address the significant issues of an aging society through policy analysis, dissemination of information, and technical assistance to the public and private sectors. The demographic challenges of a nation growing older and living longer force society to confront the roles of government and the private sector in serving the increasing number of elderly and their families. The center’s mission is to conduct research; inform policymakers; link communities to local, state, and federal governments; and foster collaboration among UCLA faculty members.

Ralph and Goldy Lewis Center for Regional Policy Studies

The Lewis Center for Regional Policy Studies was founded in 1989, with a $5 million endowment from Ralph and Goldy Lewis, to promote the multidisciplinary study, understanding, and solution of regional policy issues in California. Research projects cover welfare reform, housing, immigration, environment, health insurance, labor and employment, and transportation—with a specific interest on the policy impact on vulnerable populations as a through line.

Institute of Transportation Studies

The UCLA Institute of Transportation Studies (ITS), one of the leading transportation policy research centers in the U.S., was created in 1992 to conduct research and furnish professional education on the social, economic, environmental, and cultural aspects of transportation policy. Each year ITS faculty members, students, and research staff collaborate on a wide array of transportation policy and planning studies, ranging from an analysis of the travel trends and transportation needs of immigrants and low-income workers to the testing and evaluation of innovative fare programs to increase public transit use.

School of the Arts and Architecture

Brett B. Steele, AA Dipl, Dean
School of the Arts and Architecture
8260 Broad Art Center
310-206-6465

The UCLA School of the Arts and Architecture plays a vital role in the cultural and artistic life of the campus and community. Courses and degree programs in four departments—Architecture and Urban Design, Art, Design|Media Arts, and World Arts and Cultures/Dance—offer students unparalleled opportunities to learn from faculty members who rank among the most innovative artists, designers, ethnographers, choreographers, architects, and arts culture and performance scholars of today.
Combining opportunities for hands-on study of creative practice with an academic foundation of the liberal arts, the school offers students the chance to develop an integrated and encompassing understanding of human creativity, the arts, and architecture. Its mission is to educate, empower, and inspire the next generation of citizens to serve as cultural and artistic leaders of the twenty-first century.

The School of the Arts and Architecture includes three public arts units, including the Center for the Art of Performance at UCLA, one of the largest and most diverse performing arts presenters in the nation; and two world-class museums: the UCLA Hammer Museum, which focuses on contemporary and emerging artists, and the Fowler Museum at UCLA, which focuses on tradition-based and contemporary arts of Africa, the Americas, Asia, and the Pacific. School teaching, learning, and public activities are organized across nine buildings and sites at the UCLA campus and beyond.

Departments and Programs

The four departments of the school are integral to the rich and varied cultural life of the UCLA campus. The Architecture and Urban Design Department offers students the opportunity to interrogate contemporary architectural and urban issues in one of the most culturally diverse cities in the world, and to propose possible futures with equal measures of expertise, optimism, and vision. The Art Department offers courses in the history, theory, and practice of visual art across a wide range of media, preparing students for a life of creative making and critical thinking in contemporary art and related fields. The Design|Media Arts Department focuses on digital media and offers a comprehensive, multi-disciplinary approach that emphasizes individual exploration. The World Arts and Cultures/Dance Department offers innovative curricula focusing on the arts as expressions of culture, on the creation of dance and performance, and on fostering relationships between critical theory, activism, and artistic practice.

The school is also home to one undergraduate minor. Through its innovative interdisciplinary coursework and community arts programs, the Visual and Performing Arts Education (VAPAE) minor provides students with experiential opportunities to develop into teaching artists, introducing them to a range of possible careers in the arts while also bringing much needed arts education curricula to students throughout Los Angeles.

Information about academic programs is available from the Office of Student Services.

Teaching Credentials

Students interested in obtaining instructional credentials for California elementary and secondary schools should contact the Teacher Education Program, 1009 Moore Hall.

Degrees

The School of the Arts and Architecture offers the following degrees and undergraduate minor:

- Architectural Studies BA
- Architecture MArch, MA, PhD
- Architecture and Urban Design MS
- Art BA, MFA
- Choreographic Inquiry MFA
- Culture and Performance MA, PhD
- Dance BA
- Design|Media Arts BA, MFA
- Individual Field BA
- World Arts and Cultures BA

Undergraduate Minor

Visual and Performing Arts Education

Undergraduate Admission

In addition to the UC undergraduate application, departments require a supplemental application that involves auditions, portfolios, or evidence of creativity. Information about departmental requirements is available on the school prospective students web page.

Undergraduate Degree Requirements

Students must satisfy UC requirements, school requirements, and department requirements for the Bachelor of Arts degree.

University Requirements

The University of California has two requirements that undergraduate students must satisfy in order to graduate: Entry-Level Writing or English as a Second Language, and American History and Institutions. See Degree Requirements in the Undergraduate Study chapter for details.

Students enrolled in English Composition 1A, 1B, and 2I must take each course for a letter grade.
School Requirements
There are nine requirements that must be satisfied for award of a degree.

<table>
<thead>
<tr>
<th>Degree Requirements</th>
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<tbody>
<tr>
<td><strong>University Requirements</strong></td>
</tr>
<tr>
<td>1. Entry-Level Writing or English as a Second Language</td>
</tr>
<tr>
<td>2. American History and Institutions</td>
</tr>
<tr>
<td><strong>School Requirements</strong></td>
</tr>
<tr>
<td>1. Unit</td>
</tr>
<tr>
<td>2. Scholarship</td>
</tr>
<tr>
<td>3. Academic Residence</td>
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<tr>
<td>4. Writing Requirement</td>
</tr>
<tr>
<td>Writing I</td>
</tr>
<tr>
<td>Writing II</td>
</tr>
<tr>
<td>5. Quantitative Reasoning</td>
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<tr>
<td>6. Foreign Language</td>
</tr>
<tr>
<td>7. Upper-Division Nonmajor Courses</td>
</tr>
<tr>
<td>8. Diversity</td>
</tr>
<tr>
<td>9. General Education</td>
</tr>
<tr>
<td>Foundations of Arts and Humanities</td>
</tr>
<tr>
<td>Foundations of Society and Culture</td>
</tr>
<tr>
<td>Foundations of Scientific Inquiry</td>
</tr>
<tr>
<td><strong>Department Requirements</strong></td>
</tr>
<tr>
<td>1. Preparation for the Major</td>
</tr>
<tr>
<td>2. The Major</td>
</tr>
</tbody>
</table>

Courses that do not satisfy specific UC, school, or department requirements are referred to as electives and can be used to meet the minimum unit requirement for graduation.

Unit Requirement
Students must complete for credit, with a passing grade, no fewer than 180 units and no more than 216 units, of which at least 64 units must be upper-division courses (numbered 100 through 199). Credit for upper-division tutorials numbered 195 through 199 is limited to a maximum of 8 units in a single term, and a maximum of 32 units total for a letter grade. Each major may have limitations on the number of upper-division tutorials and/or units that may be applied toward degree requirements.

Scholarship Requirement
A 2.0 (C) average is required in all work attempted at the University of California, exclusive of courses in UCLA Extension and those graded Passed/Not Passed. A 2.0 (C) grade-point average is also required in all upper-division courses in the major taken at the University of California, as well as in all courses applied toward the general education and UC requirements.

Academic Residence Requirement
Students are in residence while enrolled and attending classes at UCLA with a declared major in the School of the Arts and Architecture. Of the last 45 units completed for the bachelor’s degree, 35 must be earned while in residence at the school. No more than 18 of the 35 units may be completed in UCLA Summer Sessions.

Courses offered by UCLA Extension may not be applied toward any part of the residence requirements.

Writing Requirement
Students must complete the UC Entry-Level Writing or English as a Second Language (ESL) requirement prior to completing the school writing requirements.

Students admitted to the school are required to complete a two-term writing requirement—Writing I and Writing II. The courses must be taken for a letter grade, and students must receive a C or better grade in each (a C– grade is not acceptable).

**Writing I.** The Writing I requirement must be satisfied within the first three terms of enrollment by completing English Composition 3, 3D, 3DS, or 3SL with a C or better grade (a C– or Passed grade is not acceptable).

The Writing I requirement may also be satisfied by scoring 4 or 5 on one of the College Board Advanced Placement Examinations in English; a combination of a score of 720 or better on the SAT Reasoning Test, Writing section (last administered in January 2016) and superior performance on the English Composition 3 Proficiency Examination; completing a course equivalent to English Composition 3 with a C or better grade (a C– or Passed grade is not acceptable) taken at another institution; or scoring 5, 6, or 7 on an International Baccalaureate Higher Level Examination.

Students whose native language is not English may need to take English Composition 1A, 1B, and 2I before enrolling in a Writing I course. All courses in the sequence must be passed with a C or better grade (a C– or Passed grade is not acceptable).

**Writing II.** The Writing II requirement must be satisfied within the first six terms of enrollment by completing one course from a faculty-approved list of Writing II courses and available on the student Degree Audit; see the Registrar’s Writing II requirement web page for details. The course must be completed with a C or better grade (a C– or Passed grade is not acceptable).

Writing II courses also approved for general education may be applied toward the relevant general education foundational area.
Quantitative Reasoning Requirement

Students must demonstrate basic skills in quantitative reasoning. The requirement may be satisfied by completing one approved UCLA course (see list below) for a C or Passed or better grade (a C– or Not Passed grade is not acceptable), or an equivalent transfer course.

The quantitative reasoning requirement may also be satisfied by achieving an SAT Reasoning Test Mathematics section score of 600 or better for exams taken January 2016 or earlier, or achieving an SAT Mathematics section score of 620 or better for exams taken March 2016 or later, or an SAT Subject Test in Mathematics score of 550 or better, or an ACT mathematics exam score of 26 or better. Approved courses include

- Biostatistics 100A, 100B
- Life Sciences 20, 30A, 30B, 40
- Mathematics 2, 3A, 31A, 31AL
- Philosophy 31
- Political Science 6, 6R
- Program in Computing 10A, 10B, 10C
- Public Affairs 60
- Statistics 10, 12, 13

Foreign Language Requirement

Students may meet the foreign language requirement by scoring 3, 4, or 5 on the College Board Advanced Placement (AP) foreign language examination in Chinese, French, German, Italian, Japanese, or Spanish, or scoring 4 or 5 on the AP foreign language examination in Latin; for languages other than Spanish and Portuguese, presenting a UCLA foreign language proficiency examination score indicating competency through level two; or completing one college-level foreign language course equivalent to level two or above at UCLA with a grade of Passed or C or better. Students who want to meet the foreign language requirement with Spanish, and do not have a qualifying AP score, must enroll in Spanish 2. Students who want to meet the foreign language requirement with Portuguese, and do not have a qualifying AP score, must enroll in Portuguese 2. The foreign language requirement must be completed within the first six terms of enrollment.

International students may petition to use an advanced course in their native language for this requirement. Students whose entire secondary education has been completed in a language other than English may petition to be exempt from the foreign language requirement.

Courses that may be used to fulfill this requirement are published on the Registrar’s foreign language requirement web page and are available on the student Degree Audit.

Upper-Division Nonmajor Requirement

Students are required to complete a minimum of 12 units of upper-division (100-level) nonmajor courses. Graduate (200-, 400-, and 500-level) courses may not be applied toward this requirement.

Diversity Requirement

The diversity requirement is predicated on the notion that students in the arts must be trained to understand the local, national, and global realities in which they make, understand, interpret, and teach the arts. Those realities include the multicultural, transnational, and global nature of contemporary society. The requirement may be satisfied by taking courses in any of three parts of the student’s overall program: general education courses, courses in the major, or upper-division nonmajor elective courses. As such, students are not required to complete an additional course to satisfy the diversity requirement. Courses satisfying this requirement consider intergroup dynamics along with such social dimensions as race, ethnicity, gender, socioeconomic background, religion, sexual orientation, age, and disability; and are relevant to the understanding of these dynamics in contemporary society and culture in the U.S. and around the world.

General Education Requirements

General education (GE) is more than a checklist of required courses. It is a program of study that reveals to students the ways that research scholars in the arts, humanities, social sciences, and natural sciences create and evaluate new knowledge; introduces students to the important ideas and themes of human cultures; fosters appreciation for the many perspectives and diverse voices that may be heard in a democratic society; and develops the intellectual skills that give students the dexterity they need to function in a rapidly changing world.
This entails the ability to make critical and logical assessments of information, both traditional and digital; deliver reasoned and persuasive arguments; and identify, acquire, and use the knowledge necessary to solve problems.

Foundations of Knowledge

General education courses are grouped into three foundational areas: Foundations of the Arts and Humanities, Foundations of Society and Culture, and Foundations of Scientific Inquiry.

Eight courses (38 units minimum) are required. A Writing II or diversity course also approved for general education may be applied toward the relevant general education foundational area.

Students who complete a year-long GE cluster series fulfill the Writing II requirement and complete nearly 50 percent of their general education requirements. Students who do not complete the year-long GE cluster series must meet with an adviser in the Student Services Office to determine applicable GE credit.

Courses listed in more than one category can fulfill GE requirements in only one of the categories.

Foundations of the Arts and Humanities. Three 5-unit courses, one from each subgroup:

- Literary and Cultural Analysis
- Philosophical and Linguistic Analysis
- Visual and Performance Arts Analysis and Practice

Courses in this area supply perspectives and intellectual skills necessary to comprehend and think critically about our situation in the world as human beings. In particular, courses furnish the basic means to appreciate and evaluate the ongoing efforts of humans to explain, translate, and transform their diverse experiences of the world through such media as language, literature, philosophical systems, images, sounds, and performances. The courses introduce students to the historical development and fundamental intellectual and ethical issues associated with the arts and humanities and may also investigate the complex relations between artistic and humanistic expression and other facets of society and culture.

Foundations of Society and Culture. Three 5-unit courses, one from each subgroup and a third course from either subgroup:

- Historical Analysis
- Social Analysis
- Third course from either subgroup

Total = 15 units minimum

Foundations of Scientific Inquiry. Two courses from either subgroup. If both courses are selected from the same subgroup, they must be from different departments.

Courses in this area ensure that students gain a fundamental understanding of how scientists formulate and answer questions about the operation of both the physical and biological world. Courses also deal with some of the most important issues, developments, and methodologies in contemporary science, addressing such topics as the origin of the universe, environmental degradation, and the decoding of the human genome. Through lectures, laboratory experiences, writing, and intensive discussions, students consider the important roles played by the laws of physics and chemistry in society, biology, Earth and environmental sciences, and astrophysics and cosmology.

Foundations Course Lists. Creating and maintaining a general education curriculum is a dynamic process; consequently, courses are frequently added to the list. For the most current list of approved courses that satisfy the Foundations of Knowledge GE plan, consult with an academic adviser in the Office of Student Services, 2200 Broad Art Center, or see the Schedule of Classes.
Reciprocity with Other UC Campuses
Students who transfer to UCLA from other UC campuses and have met all GE requirements prior to enrolling at UCLA are not required to complete the School of the Arts and Architecture GE requirements. Written verification from the dean at the other UC campus is required. Verification letters should be sent to the UCLA School of the Arts and Architecture, Office of Student Services, Box 951620, Los Angeles, CA 90095-1620.

Intersegmental General Education Transfer Curriculum
Transfer students from California community colleges have the option to fulfill UCLA lower-division GE requirements by completing the Intersegmental General Education Transfer Curriculum (IGETC) prior to transfer. The curriculum consists of a series of subject areas and types of courses that have been agreed on by the University of California and the California community colleges. Although GE or transfer core courses are degree requirements rather than admission requirements, students are advised to fulfill them prior to transfer. The IGETC significantly eases the transfer process, as all UCLA GE requirements are fulfilled when students complete the IGETC courses. Students who select the IGETC must complete it entirely before enrolling at UCLA. Otherwise, they must fulfill the School of the Arts and Architecture GE requirements.

Department Requirements
Departments generally set two types of requirements that must be satisfied for award of a degree: preparation for the major (lower-division courses) and the major (upper-division courses). Preparation for the major courses should be completed before beginning upper-division work.

Preparation for the Major
A major requires completion of a set of courses known as preparation for the major. Each department sets its own preparation for the major requirements; see the Curricula and Courses chapter.

The Major
A major is composed of no fewer than 56 units, including at least 36 units of upper-division courses.

Students must complete their major with a scholarship grade-point average of at least 2.0 (C) in all courses in order to remain in the major. Each course in the major department must be taken for a letter grade.

As changes in major requirements occur, students are expected to satisfy the new requirements insofar as possible. Hardship cases should be discussed with the department adviser, and petitions for adjustment should be submitted to the dean of the school when necessary.

Any department offering a major may require a general final examination.

Individual Majors. Highly motivated students who believe that no single major accommodates their specific interests and goals may propose designing their own major. Proposals are prepared with faculty guidance and sponsorship, and must explain the intent concerning the anticipated program of study and reasons why the academic goals cannot be achieved within an existing major. Proposals must be submitted no later than the end of the sophomore year. Transfer students must complete at least one term of residency at UCLA before proposing an individual major. Students interested in designing an individual major should consult with the school director of student services, 2200 Broad Art Center.

Minors and Double Majors. Students may petition for a minor and/or double major on an individual basis. It is strongly recommended that students pursuing a minor or double major enroll in 15 to 20 units per term. Students should contact the Student Services Office for an outline of criteria required for the petition.

Policies and Regulations
Degree requirements are subject to policies and regulations, including the following:

Student Responsibility
Students should take advantage of academic support resources, but they are ultimately responsible for keeping informed of and complying with the rules, regulations, and policies affecting their academic standing.

Study List
Each term the study list must include from 12 to 20 units. The school has no provision for part-time enrollment. After the first term, students may petition to carry more than 20 units if they have an overall grade-point average of 3.0 (B) or better and have attained at least a 3.0 (B) grade-point average in the preceding term with all courses completed and passed. Students should contact the Student Services Office no later than the end of the second week of instruction to request additional units.

Minimum Progress
Students are expected to complete satisfactorily at least 36 units during any three consecutive terms in residence; they are placed on probation if they fail to pass these units. Stu-
Students are subject to dismissal if they fail to pass at least 32 units in three consecutive regular terms in residence. In addition, students are held to the minimum grade-point average and progress toward degree policies described in the Academic Policies chapter.

Changing a Major

Students in good academic standing who wish to change their major may petition to do so, provided they can complete the new major within the 216-unit limit and normal time to degree (12 terms for students who entered as freshmen; six terms for students who entered as transfers). Petitions must be submitted to and approved by the department or committee in charge of the new major. Admission to certain majors may be closed or restricted. Changes are normally not permitted if students are on probation or have begun their last term.

Concurrent Enrollment

Enrollment at a non-UC institution or at UCLA Extension while enrolled at UCLA is not permitted.

Credit Limitations

The following credit limitations apply to all undergraduate students enrolled in the school:

Advanced Placement Examinations. Credit earned through the College Board Advanced Placement (AP) Examinations may be applied toward certain UC/school requirements. Consult with an adviser in the Student Services Office to determine applicable credit. Portions of AP Examination credit may be evaluated by corresponding UCLA course numbers. If students take the equivalent UCLA course, unit credit for such duplication is deducted before graduation. See the school AP table for UCLA course equivalents.

Graduate Courses. Undergraduate students who wish to take courses numbered in the 200 series for credit toward a specific degree requirement must petition for advance approval of the department chair and the dean of the school and must meet specific qualifications. Courses numbered in the 400 and 500 series may not be applied toward the degree.

Academic Counseling Services

The School of the Arts and Architecture offers advising, program planning in the major and general education requirements, and individual meetings with school and departmental advisers from matriculation through graduation. For academic counseling information, contact the Student Services Office, 2200 Broad Art Center.

Honors

Undergraduate students who achieve scholastic distinction may qualify for the following honors and programs:

Dean’s Honors

The Dean’s Honors list recognizes high scholastic achievement in any one term. The following criteria are used to note Dean’s Honors on student records: a 3.8 grade-point average (GPA) for less than 16 units of work (3.7 GPA for 16 or more units), with at least 12 letter-graded units. Students are not eligible for Dean’s Honors in any given term if they receive an Incomplete or a Not Passed (NP) grade, change a grade, or repeat a course. Dean’s Honors are automatically recorded on the transcript for the appropriate term.

Latin Honors

Latin Honors are awarded at graduation to students with superior grade-point averages. To be eligible, students must have completed 90 or more units for a letter grade at the University of California and must have attained an overall grade-point average at graduation that places them in the top five percent of the school (GPA of 3.951 or better) for summa cum laude, the next five percent (GPA of 3.907 or better) for magna cum laude, or the next 10 percent (GPA of 3.851 or better) for cum laude. The minimum GPAs required are subject to change on an annual basis. Required GPAs in effect in the graduating year determine student eligibility. Students should contact the Student Services Office or see the Registrar’s honors web page for the most current calculations of Latin honors.

Departmental Scholar Program

Exceptionally promising juniors or seniors may be nominated as Departmental Scholars to pursue bachelor’s and master’s degree programs simultaneously. Qualifications include completion of 24 courses (96 quarter units) at UCLA or the equivalent at a similar institution and the requirements in preparation for the major. Students must also have at least one term of coursework remaining at UCLA. To obtain both the bachelor’s and master’s degrees students must be provisionally admitted to the Graduate Division, fulfill requirements for each program, and maintain a minimum 3.0 (B) average. No course may be used to fulfill requirements for both degrees. Interested students should consult their department well in advance of application dates for graduate admission. Students should contact the Student Services Office in 2200 Broad Art Center for details.
Graduate Study

The advanced degree programs offer graduate students unique research opportunities when combined with special resources, such as the Young Research Library, Arts Library special collections, and UCLA exhibit venues.

Fellowships, grants, and assistantships are available through the departments and the dean of the Graduate Division.

Admission

In addition to requiring that applicants hold a bachelor’s degree from an accredited U.S. institution or an equivalent degree of professional title from an international institution, each department in the school has limitations and additional requirements. In general, samples of creative work (auditions, portfolios, computer programs, etc.) are required. Detailed information is available on individual department websites and in program requirements for UCLA graduate degrees.

For information on the proficiency in English requirements for international graduate students, see Graduate Admission in the Graduate Study chapter.

Degree Requirements

Requirements to fulfill each degree objective vary according to the degree and the department. For complete degree requirements, see program requirements for UCLA graduate degrees.

Research Centers

Ten interdisciplinary research centers—the Art and Global Health Center, Art|Sci Center, cityLAB, Conditional Space Studio, Counterforce Lab, Experiential Technologies Center, Game Lab, Grunwald Center for the Graphic Arts, NOW Institute, and xLAB—as well as the renowned Murphy Sculpture Garden—are part of the school. They offer students the opportunity to broaden and deepen their experience of the arts and architecture while at UCLA.

In addition to offering a rich and diverse environment on campus, the school encourages students to participate in community outreach programs designed around concerts, exhibitions, symposia, and dance productions presented in cooperation with groups throughout the greater Los Angeles area.

School of Dentistry

Paul H. Krebsbach, DDS, PhD, Dean

School of Dentistry
53-038 Dentistry 310-206-6063

The UCLA School of Dentistry has a national and international reputation for its teaching, research activities, and public service that prepare dental students for professional careers dedicated to patient care, leadership, and service. The curriculum prepares students for changes in treatment modalities and health care delivery systems. From the moment training begins, students actively participate in preventive and clinical dental care and soon make valuable contributions to the clinical health team. Clinical instruction emphasizes the comprehensive care of patients. Students interact with their colleagues, faculty members, and dental auxiliary personnel in much the same way as they later will interact in a private or group practice.

Students may undertake programs designed to meet their special interests; mandatory selectives encourage advanced training in an area of particular interest and service learning. In addition to basic and applied research programs within the school, students participate in community service programs such as the Wilson-Jennings-Bloomfield UCLA Venice Dental Center. Graduate programs and resident specialty programs foster new lines of research that lead to better treatment options. An active continuing education program, directed by UCLA faculty members, offers a variety of hands-on courses for members of the dental profession and their auxiliaries.

Degrees and Programs

The School of Dentistry offers the following degrees:

Dental Surgery DDS
Oral Biology MS, PhD

Articulated Degree Programs

Oral Biology MS/Dentistry DDS
Oral Biology MS/Dentistry Certificate
Oral Biology PhD/Dentistry Certificate
Oral Biology PhD/Dentistry DDS

Concurrent Degree Programs

Dentistry DDS/Management MBA

In addition, the school has a Professional Program for International Dentists (PPID) and a number of dental specialty residency programs. For information on the MS and PhD
programs in Oral Biology, for which admission to the School of Dentistry is not required, see program requirements for UCLA graduate degrees.

Pre-Dental Curriculum

For details on the three-year pre-dental curriculum, see Career Center pre-health.

DDS Degree

The UCLA dental curriculum leading to the degree of Doctor of Dental Surgery (DDS) is based on the quarter system. The course of study usually takes four academic years of approximately nine months each, with three required summer quarters between the first/second, second/third, and third/fourth years. The curriculum is designed to give students experience in all phases of clinical dentistry.

The dental curriculum consists of three principal areas: basic health sciences courses, didactic dental courses, and clinical experience. The first two years of the curriculum are chiefly devoted to didactic, laboratory, and general clinical coursework. The final two years emphasize training and instruction in clinical fields, including endodontics, fixed prosthodontics, operative dentistry, oral diagnosis and treatment planning, oral radiology, oral and maxillofacial surgery, anesthesiology, orthodontics, pediatric dentistry, periodontics, and removable prosthodontics.

Postgraduate Programs

Opportunities for postgraduate study include a one-year general practice residency program; a one-year advanced education in general dentistry program; a one-year residency in maxillofacial prosthodontics; a six-year oral and maxillofacial surgery residency training program; three-year prosthodontics, periodontics, orthodontics, and dental anesthesiology programs; two-year programs in the specialties of endodontics, oral radiology, and orofacial pain and dysfunction; and a 26-month program in pediatric dentistry.

Information on postgraduate programs can be obtained by visiting the school post-DDS programs web page.

School of Law

Jennifer L. Mnookin, JD, PhD, Dean

School of Law
1242 Law Building
310-825-4841

By any standard, UCLA School of Law is recognized as one of the nation’s great law schools. Each year a lively, talented, and diverse law student population assembles in a rigorous, innovative, and supportive environment. Faculty members frequently receive awards for teaching excellence, and are highly regarded University-wide and nationally. They also are recognized worldwide for their scholarship in a broad spectrum of fields that dramatically affect the world—constitutional law, environmental law and policy, human rights, criminal law, corporate law, employment law, international law, immigration law, and intellectual property, to name a few. The structure of U.S. democracy; the underpinnings of individual liberties and regulation of business; the powerless and homeless; the many permutations of a race-conscious society—all are subjects of investigation and study. Faculty members are committed to being intellectually and professionally demanding of students and supportive at the same time, encouraging and fostering a genuine spirit of collaboration and community.

Law students select courses from an intellectually rich curriculum. Courses are taught in both traditional and clinical settings, with some offered as part of coordinated concurrent degree programs or specializations in business law and policy; critical race studies; environmental law and policy; international and comparative law; law and philosophy; media, entertainment, technology, and sports law; and public interest law and policy. Situated at a major gateway to the Pacific Rim, and part of an outstanding research university, UCLA School of Law affords law students myriad interdisciplinary opportunities in the classroom and through independent research.

The school’s nationally recognized experiential education program offers sophisticated courses that help students develop applied lawyering skills, focus on solving client problems, and gain from their UCLA education more of what they will ultimately face as lawyers and policy makers. The experiential education curriculum includes courses in interviewing, counseling, negotiation, business transactions, criminal and civil trial advocacy, community-based
lawyering, environmental law, human rights, and international justice. Clinics and simulations offer students the opportunity to provide direct representation to clients in areas including immigration rights, veterans’ rights, and legal work on behalf of documentary filmmakers and musicians, among other programs.

The technologically advanced, spacious, and comfortable Hugh and Hazel Darling Law Library—replete with natural lighting and views—houses an extensive collection of legal materials.

Successful professional placement of graduates is a hallmark of the law school. Approximately 400 interviewers from law firms, corporations, government agencies, and public interest organizations across the country visit campus annually. More than 18,000 UCLA graduates work in coveted positions in California and around the world, serving in law firms and government agencies and working as in-house counsel, business executives, law professors, judges, and lawmakers.

Degrees

The School of Law offers the following degrees:

Doctor of Juridical Science SJD
Juris Doctor JD
Master of Laws LLM
Master of Legal Studies MLS

Concurrent Degree Programs

Law JD/African American Studies MA
Law JD/American Indian Studies MA
Law JD/Education MEd, MA, EdD, or PhD
Law JD/Management MBA
Law JD/Philosophy PhD
Law JD/Public Health MPH
Law JD/Policy MPP
Law JD/Social Welfare MSW
Law JD/Urban and Regional Planning MURP

In addition to the concurrent programs above, students may design a tailored program from other disciplines in the UCLA curriculum or from another high-quality institution; this must be arranged in consultation with the School of Law and the other selected program.

Detailed information about academic programs, course titles and descriptions, fees, and the semester-system calendar are available on JD degrees and specializations.

Doctor of Juridical Science Degree

The Doctor of Juridical Science (SJD) degree program is designed for those seeking to pursue careers as teachers and scholars of law. The highly selective program is open only to applicants who possess a distinguished prior academic record in law, show promise of outstanding scholarship, and demonstrate a high potential for completing a scholarly dissertation of required quality. Applicants must hold a JD degree or foreign equivalent and an LLM degree (or be enrolled in a program leading to an LLM degree).

Juris Doctor Degree

UCLA School of Law has as one of its central purposes the training of attorneys who attain high levels of professional excellence and integrity, and who exercise civic responsibility in myriad ways over long careers.

Admission

Students must have received a bachelor’s degree from a university or college of approved standing before beginning work in the school. Students are required to take the Law School Admission Test (LSAT), although students concurrently applying to or already in a UCLA graduate program may submit their Graduate Record Exam (GRE) score in lieu of an LSAT score.

The school seeks to admit students of outstanding intellectual ability who bring a wide range of backgrounds, experiences, and perspectives to the classroom and the legal profession. Through long experience, the faculty has concluded that the quality of the education of each student is affected in significant ways by the presence of vital diverse viewpoints. Students of all backgrounds choose to come to UCLA School of Law in significant part because of the school’s outstanding achievements in creating a highly diverse educational environment.

In evaluating each applicant the school places substantial weight on traditional measures of academic ability, namely grades and LSAT (or GRE) scores. It also recognizes in its evaluation that other factors and attributes contribute greatly to a person’s ability to succeed as a law student and lawyer. When assessing academic promise and achievement, the applicant’s entire file is considered, including letters of recommendation; whether economic, physical, or other challenges have been overcome; scholarly achievements such as graduate study, awards, or publications; and the rigor of the undergraduate educational program.

In addition, the school considers attributes that may contribute to assembling a diverse class. Special emphasis is placed on socioeconomic disadvantage in the evaluation. Also considered are work experience and career achievement,
community or public service, career goals (with particular attention to the likelihood that applicants will represent those in underrepresented communities), significant hardships overcome, evidence of and potential for leadership, language ability, unusual life experiences, and any other factors (except those deemed inadmissible by the Regents or by other applicable law) that indicate the applicant may significantly diversify the student body or make a distinctive contribution to the school or the legal profession.

**Residence and Unit Requirements**
Candidates for the Juris Doctor degree must pursue resident law school study for six semesters and successfully complete 87 units, at least 64 of which must be earned in regularly scheduled law class sessions. The residence requirements may be satisfied as follows: six semesters in regular session in this school; or two semesters in regular session (or equivalent) in a school that is accredited by the American Bar Association, coupled with four semesters in regular session (or equivalent) in this school.

Every first-year student must take the full schedule of required courses; second- and third-year students are required to take a minimum of 12 units and may not take more than 16 units each semester. The second- and third-year curriculum is elective, except for a required course in professional responsibility and a substantial analytical writing requirement. In addition to the courses in the regular law school curriculum, students may take two courses for credit in other UCLA disciplines. Graduate students may enroll in upper-division law courses on a limited basis. Law courses are not open to non-UCLA students. Auditing of law courses is not permitted.

**Attendance and Grades**
The right to take examinations and the privilege of continuing as a student in the school are conditioned on regular classroom attendance. Information on the grading system, which is based on a letter-grade scale of A+ to F, and standards for satisfactory performance and for graduation may be obtained from the assistant dean for academic affairs and operations.

**Curriculum**
Courses of instruction are offered within the school and supervised educational experiences outside it in an effort to enable students to think in new and clarifying ways and to prepare them for careers of practice and public service. To this end, the school employs several instructional techniques in a variety of subject areas.

In the first year of their legal education, students undertake intensive study of legal reasoning in fields that have historically dominated legal thought. Students begin with a pioneering week-long orientation program that immerses them in the fundamentals of the law school learning process. From there they embark on a formative first year of courses that historically have laid the foundation for law of all kinds: civil procedure, constitutional law, contracts, criminal law, and property and torts. In addition, an elective on modes of legal inquiry in the second semester serves as a gateway to the upper-division curriculum.

In the second and third years, students have an opportunity to engage in a number of different fields of law and law-related study. All of the courses in the second- and third-year curricula are elective, with the exception of the legal profession and substantial analytical writing requirements.

**Master of Laws Degree**
The School of Law offers a Master of Laws (LLM) degree program for international and domestic law school graduates who wish to pursue a year of graduate legal education. The program allows students to specialize their studies in fields such as entertainment law, international and comparative law, and four separate business law subjects; or to design their own specialization in a field of their choice.

**Master of Legal Studies Degree**
The Master of Legal Studies (MLS) degree program is designed for non-lawyer professionals in business, government, and the nonprofit sector who seek to advance their careers and capabilities by obtaining an advanced degree and a deep understanding of the legal and regulatory issues that impact their industry or field of interest. Full-time students can finish the degree in one academic year, part-time students may take as many as four years. An MLS degree does not entitle the holder to sit for the bar exam or become a licensed lawyer.
**Academic Specializations for JD Degree**

**Business Law and Policy**
The Business Law and Policy specializations are designed for students who wish to focus their schooling in a particular area of business law and ultimately earn a certificate of completion with their degree. Students may choose from two specializations: business law and taxation. Approximately 70 courses and seminars are offered. In addition, there are two recommended tracks: corporate law and bankruptcy and commercial law, which offer additional guidance to students in course selection for the business law specializations. Business law materials are integrated to varying degrees in the law school’s first-year curriculum, typically in property, contracts, and torts. The second- and third-year curricula in the specialization include courses covering a wide variety of legal and business issues, ranging from regulation of markets to the design of business transactions.

**Critical Race Studies**
UCLA School of Law is the only American law school to offer an advanced curriculum that fosters students’ systematic and rigorous study in the area of critical race studies. With many faculty members who have been instrumental in pioneering and advancing critical race theory, the Critical Race Studies specialization is essential to promoting insightful, intelligent public conversation about race relations. It is appropriate for law students who seek advanced study and/or practice in race and the law, critical race theory, civil rights, public policy, and other legal practice areas that are likely to involve working with racial minority clients and communities or working to combat racial inequality.

**International and Comparative Law**
The International and Comparative Law program is one of the best in the nation. An expansive law faculty, course offerings, colloquia and symposia, student-edited journals, externships, foreign exchange offerings, and a broad community of interested students from around the world constitute a rich milieu in which to learn about the field. The International and Comparative Law specialization builds on these strengths, and directs students to coursework that may range from international business to comparative constitutional law to international human rights.

**Law and Philosophy**
The Law and Philosophy specialization is designed for students who want to supplement their legal studies by exploring more theoretical issues concerning the philosophical foundations of law. It is invaluable to those students interested in attending graduate programs or exploring a career in academia. The specialization exposes students to material on the nature of law and legal systems, legal methodologies, and the theoretical underpinnings and justifications of particular doctrinal areas such as constitutional law, criminal law, and contract. Students need not have any prior background in philosophy, but a strong interest in the subject is recommended.

**Media, Entertainment, and Technology Law and Policy**
Los Angeles is the center of the entertainment industry. The specialization is the most comprehensive, advanced, and innovative approach to the study of entertainment and media law in the country. Students who fulfill the requirements have a solid grounding in the law, customs, theory, and policy in the motion picture, television, music, and other industries involved in creative and artistic matters. The program also prepares students who choose to work in nonprofit institutions, government, or academia in the area of entertainment, media, and intellectual property law.

**Public Interest Law and Policy**
Recognizing the considerable debate about the proper role of the law in creating and sustaining a just society, the David J. Epstein Program in Public Interest Law and Policy specialization strives to offer its students an innovative and intellectually ambitious curriculum that prepares them to engage in sophisticated representation of traditionally underserved clients and interests. The specialization, one of the nation’s top such programs, has a competitive admissions process. Graduates have received prestigious public interest law fellowships, including the Skadden and Equal Justice Works postgraduate fellowships, and work in a variety of settings, including nonprofit organizations, government agencies, think tanks, and private public interest firms. Graduates work throughout the world in a broad range of social justice issues such as homelessness prevention; immigrants’ rights; health-care access; poverty; workers’ rights; international human rights; criminal justice; lesbian, gay, bisexual, transgender, and queer rights; and more. Faculty members are leaders in their respective fields, and have distinguished themselves by the quality of their practical legal experience, scholarship, and teaching.
Academic Specializations for LLM Degree

Business Law

The Business Law specialization is designed to allow students to focus in one of four tracks: business law, bankruptcy, securities regulation, and taxation. Approximately 70 courses and seminars are offered in the specialization. The four tracks are designed to offer guidance to students in course selection, as well as highlight the specialization's curricular strengths. The advanced curricula include courses covering a wide variety of legal and business issues, ranging from regulation of markets to the design of business transactions. The Lowell Milken Institute for Business Law and Policy prepares students for outstanding careers and leadership in business law; as well as in business, the nonprofit sector, and philanthropy. The institute simultaneously serves as a dynamic hub of research and strategy for practitioners, scholars, and experts across a variety of disciplines.

Critical Race Studies

UCLA School of Law is the only American law school to offer an advanced curriculum that fosters students' systematic and rigorous study in the area of critical race studies. With many faculty members who have been instrumental in pioneering and advancing critical race theory, the Critical Race Studies specialization is essential to promoting insightful, intelligent public conversation about race relations. It is appropriate for law students who seek advanced study and/or practice in race and the law, critical race theory, civil rights, public policy, and other legal practice areas that are likely to involve working with racial minority clients and communities or working to combat racial inequality.

International and Comparative Law

The International and Comparative Law program is one of the best in the nation. An expansive law faculty, course offerings, colloquia and symposia, student-edited journals, externships, foreign exchange offerings, and a broad community of interested students from around the world constitute a rich milieu in which to learn about the field. The International and Comparative Law specialization builds on these strengths, and directs students to coursework that may range from international business to comparative constitutional law to international human rights.

Law and Sexuality

The Law and Sexuality specialization builds on the role of the school as a leader in the field of sexual orientation and gender identity law and scholarship. The goal of the specialization is to expand the quality and extent of legal knowledge and public discourse on issues related to sexuality and law. It is affiliated with the Williams Institute, a national think tank dedicated to conducting rigorous, independent research on sexual orientation and gender identity law and public policy. Students can take classes offered by faculty members and scholars associated with the institute, and participate in a range of institute activities including the speaker series and annual conference, moot court competition, and the Dukeminier Awards journal. Staff from the institute work with LLM students to secure internships in the Los Angeles area and to establish connections between LLM students and international experts and organizations working in their geographic or topic area. The specialization involves coursework on comparative and/or international law with focus on sexuality issues.

Media, Entertainment, and Technology Law and Policy

Los Angeles is the center of the entertainment industry. The specialization offers the most comprehensive, advanced, and innovative approach to the study of entertainment and media law in the world. Students who fulfill the requirements have a solid grounding in the law, custom, theory, and policy in the motion picture, television, music, and other industries involved in creative and artistic matters. The program also prepares students who choose to work in nonprofit institutions, government, or academia in the area of entertainment, media, and intellectual property law.

Public Interest Law

Exploring the proper role of the law in creating and sustaining a just society, the Public Interest Law specialization strives to offer its students an innovative and intellectually ambitious curriculum that prepares them to engage in sophisticated representation of traditionally underserved clients and interests. The specialization, one of the nation's top such programs, has a competitive admissions process. Students represent a broad range of political and ideological perspectives. Graduates' impact is far reaching as they work on a broad range of social justice issues such as women's rights; immigrants' rights; poverty; health-care access; international human rights; criminal justice; lesbian, gay, bisexual, transgender, and queer rights; and more.
Research Centers, Institutes, and Programs

Center for Immigration Law and Policy
The Center for Immigration Law and Policy supports UCLA Law’s nationally renowned immigration scholars and enhances the school’s existing and wide-ranging immigration programs, which include the Immigrant Family Legal Clinic at the Robert F. Kennedy Community Schools in Los Angeles; service-learning trips to Tijuana, Mexico and the border region of Texas; and the Immigrants’ Rights Policy Clinic. The center publishes briefings and reports on immigration policy, hosts conferences and symposia featuring top national scholars, and collaborates with Southern California organizations working in the field.

Center for Law and Economics
The mission of the Center for Law and Economics is to foster academic scholarship exploring how economics can help us better understand and improve our laws. UCLA has one of the richest law and economics traditions in the world, and many of the founders of law and economics have made UCLA their academic home. The center, along with the Anderson Graduate School of Management and School of Law Lowell Milken Institute for Business Law and Policy, sponsors the UCLA Law, Economics, and Organization Workshop, where speakers present their latest works-in-progress in the broad area of law and economics as it relates to business organizations.

Criminal Justice Program
The Criminal Justice Program addresses a wide spectrum of issues in criminal law with a vigorous program of education, policy work, and research. Areas of focus include police and digital surveillance, the relationship between criminal law and immigration enforcement, trial and appellate advocacy, criminal defense, expert witnesses and wrongful convictions, sentencing, the death penalty, fines, prison law, collateral consequences of criminal convictions and prisoner reentry, juvenile justice, international and transnational crimes, criminal justice reform in the U.S. and abroad, and critical race studies.

Critical Race Studies Program
Throughout American history, race has profoundly affected the lives of individuals, growth of social institutions, substance of culture, and workings of our political economy. Not surprisingly, this impact has been substantially mediated through the law and legal institutions. To understand the deep interconnections between race and law and, particularly the ways in which race and law are mutually constitutive, is an extraordinary intellectual challenge with substantial practical implications. In a nation that is becoming more racially diverse and finds global issues at the forefront of political debate, these issues promise to remain central to the work of law practitioners and the research of legal scholars. The only one of its kind in the U.S., the Critical Race Studies Program is proud that some of the original architects of critical race theory are faculty members. Established in 2000, the program is a training ground for a new generation of practitioners, scholars, and advocates committed to racial justice theory and practice; and is a multifaceted program that augments a rigorous course of study with research colloquia, symposia, interdisciplinary collaborations, and community partnerships in order to integrate theory and practice.

David J. Epstein Program in Public Interest Law and Policy
The school’s highly selective David J. Epstein Program in Public Interest Law and Policy was established in 1997 in response to the need to better train public-interest lawyers. It quickly became one of the nation’s most innovative and successful law school public-interest programs, engaging students in an array of social justice issues. The program strives to ensure that its students pursue an innovative and intellectually ambitious curriculum, and extracurricular involvement that best prepares them to engage in sophisticated representation of traditionally underserved clients and interests. Beyond the formal coursework, the program offers an array of opportunities for students to hear from leading public-interest practitioners and scholars, work on current policy problems, and become involved in public-interest activities within and outside the School of Law. The program also sponsors a series of forums, symposia, and activities that focus on social justice issues in which all students, faculty, alumni, and the broader community participate.

Emmett Institute on Climate Change and the Environment
The Emmett Institute on Climate Change and the Environment is the leading law-school center focused on climate change and other critical environmental issues. Founded in 2008, the institute works across disciplines to develop and promote research and policy tools useful to decision makers locally, statewide, nationally, and beyond. The institute houses the school’s leading environmental programs, including the Frank G. Wells Environmental Law Clinic, a vital training ground for environmental lawyering. Taking advantage of its home at one of California’s top law schools, the institute has particular expertise in the cutting-edge
steps taken by California to lead the way toward meaningful reductions of greenhouse gas emissions. Lawmakers, the broader legal community, business leaders, academics, and the media rely on the institute as a trusted resource to analyze and answer questions about policy and law issues related to climate change and other environmental challenges.

**Empirical Research Group**

UCLA School of Law is one of the only law schools in the country to offer its faculty members the support of trained statisticians to further empirical research. The **Empirical Research Group** (ERG) is a methodology-oriented research center that specializes in the design and execution of quantitative research in law and public policy, and enables faculty members to include robust empirical analysis in their legal scholarship. Articles and reports published by faculty members working with ERG have covered topics as diverse as bankruptcy, legal aid, pollution prevention, tax policy, gay rights, the living wage, and campaign finance disclosure. Articles, reports, working papers, and supporting data are posted on the ERG website. In addition to faculty scholarship, ERG trains law students as research assistants in empirical methods such as sampling, data collection, and statistics, and works closely with law students who conduct their own empirical research.

**Experiential Education Program**

The School of Law has long been recognized for its innovative approach to experiential teaching that transforms the classroom into a real-world laboratory through the integration of theory and practice. It has been a national leader in clinical teaching since the early 1970s, and continues to offer rigorous practical training across a wide range of practice areas. Students gain crucial firsthand experience that prepares them for future careers, learning from faculty members whose knowledge and expertise place them at the forefront of experiential education.

From the first year, students have opportunities to receive training and hands-on experience by participating in the **El Centro Legal Clinics**. El Centro places students with public-interest legal services organizations to provide legal assistance to underserved individuals, families, and communities. Second- and third-year students can participate in a broad array of clinical and experiential courses that encompass all areas of legal practice—litigation, transactional, and public interest. In addition, second- and third-year students can do part-time and full-time externships, working for judges, government agencies, public interest law firms, and nonprofit organizations.

The experiential education program is led by exceptional faculty members—visionary scholars who have contributed the cornerstone ideas that form the basis of clinical training, as well as a new generation of leaders who are bringing experiential education into areas of the legal profession that have long remained outside the scope of hands-on training.

**Externships and Field Placements**

Through the School of Law’s extensive and diversified **externship program**, students can work in a supervised environment with a wide variety of employers and in a diverse range of practice areas. Students are able to extern with judges, government agencies, nonprofit organizations, or in some circumstances, entertainment and other in-house placements. They also may participate in the **UCDC Law Program**, a full-time externship program in Washington, DC. The field placement program brings together faculty members, students, and practicing lawyers to collaborate and connect classroom learning with practice opportunities.

**International and Comparative Law Program**

The **International and Comparative Law Program** offers a wealth of courses, seminars, and clinics, prominent symposia, international moot court opportunities, and highly regarded student-edited journals that address the emerging challenges of a globalized world. Permanent faculty members offer numerous international and comparative law courses such as international business transactions, national security law, international environmental law, international criminal law, European Union law, and Islamic law. The study of international and comparative law is further strengthened by the opportunity to take courses in other UCLA departments. Some of the country’s best work in international economics, politics, and business occurs at UCLA, and many law students find it valuable to complement their law school work with coursework in other departments. Students may also pursue joint degrees with other departments with the approval of the law school administration.

**Law and Philosophy Program**

The School of Law and the Philosophy Department offer an exciting **program in law and philosophy** that takes advantage of the law faculty’s strength and depth in the subject, and the school’s close relationship to the Philosophy Department. The program has many dimensions, including a wide range of courses at the intersection of law and philosophy and a legal theory workshop, open to all members of the law school and Philosophy Department, in which leading scholars present works in progress.
Lowell Milken Institute for Business Law and Policy

The central mission of the Lowell Milken Institute for Business Law and Policy is to influence national legal and policy debate over critical issues affecting the regulation and governance of business. The institute seeks to fulfill this mission by promoting innovative research at the intersection of law and business, by a highly respected and widely recognized business law faculty; by offering a unique blend of policy and practice-oriented courses designed to prepare law students to be leaders in the new economy; and by hosting timely conferences and scholarly events on matters that advance the public discussion.

Native Nations Law and Policy Center

The Native Nations Law and Policy Center supports Native nations to enhance their governmental institutions and laws, strengthen their cultural resource protections, and address critical public policy issues by bringing together UCLA academic resources and the knowledge and experience of tribal leaders and knowledge-holders. The center serves as the home for the Tribal Legal Development Clinic and Tribal Appellate Court Clinic that involve students in projects such as constitution drafting, code development, and serving as law clerks for Native nation clients.

Office of Public Interest Programs

UCLA School of Law has a long-standing commitment to public service, and is committed to cultivating an environment that encourages all of its students and alumni to better serve society in myriad ways. Students gain significant exposure and experience in public service through clinical courses, a pro bono program, an externship program, extensive public interest advising and informational programming, and numerous student organizations. The Office of Public Interest Programs, hub of the school’s public interest efforts, hosts a variety of career-oriented programs and relevant public interest forums and events in which students, faculty, alumni, and the broader community participate. The office also hosts the annual Southern California Public Interest Career Day, which attracts more than 110 public service employers and some 1,000 students from around the region.

Program on Understanding Law, Science, and Evidence

Founded in 2009, the Program on Understanding Law, Science, and Evidence (PULSE) explores the many connections between law and science, technology, and evidence. PULSE engages in interdisciplinary research, discussion, and programming to examine how basic facts about our world, furnished through science and credited as evidence, influence various venues of law and policymaking.

The Promise Institute for Human Rights

The Promise Institute for Human Rights, founded with a visionary $20 million gift in 2017, trains human rights lawyers and leaders, generates vital scholarship, and develops programs for on-the-ground assistance to address the most pressing contemporary human rights concerns of our times—including genocide studies, international migration and refugee crises, and post-conflict human rights. Through cross-disciplinary work, the institute explores the complex relationships between economic development, health, democracy, rule of law, and human rights. Students participate in a wide range of clinics, experiential programs, research opportunities, and fellowships.

Resnick Center for Food Law and Policy

The Resnick Center for Food Law and Policy is dedicated to studying and advancing law and policy solutions to improve the modern food system. A national think tank at the school, the program develops key legal and policy research and tools to foster a food system, from farm to the fork, that is healthy both for consumers and the environment.

UCLA Institute for Law, Technology, and Public Policy

The UCLA Institute for Technology, Law, and Policy performs cross-disciplinary research on the ways that new and emerging technologies affect society, privacy, law, and public policy. The institute is a collaboration between UCLA School of Law and the UCLA Samueli School of Engineering. The institute brings together faculty and students from the law and engineering schools to conduct research, convene events, and engage the wider academic community and the public about the benefits and risks of technologies including artificial intelligence and machine learning, robotics, cybersecurity, and digital media and communications.

Williams Institute on Sexual Orientation and Gender Identity Law and Public Policy

The Williams Institute on Sexual Orientation and Gender Identity Law and Public Policy is the only think tank of its kind dedicated to the field of sexual orientation law and public policy. The institute supports legal scholarship, legal research, policy analysis, and education regarding sexual orientation discrimination and other legal issues that affect
lesbian and gay people. The institute began with the recognition that issues central to sexual orientation law have profound implications for the development of the law and public policy in general. Drawing on the intellectual and material resources of UCLA, the institute serves as a national center for the interdisciplinary exploration of these issues by scholars, judges, practitioners, advocates, and students.

Ziffren Institute for Media, Entertainment, Technology, and Sports Law

The Ziffren Institute for Media, Entertainment, Technology, and Sports Law supports and expands the curricular offerings of the Media, Entertainment, Technology, and Sports Law specialization. The program helps students interested in learning more about entertainment law to earn externships with entertainment-related businesses, brings influential speakers to campus, and sponsors the industry’s top legal conference on entertainment issues, the annual UCLA Entertainment Symposium. Students run an entertainment-related journal, the UCLA Entertainment Law Review; and the student organization, the Entertainment Law Association.

Ziman Center for Real Estate

Reflecting a growing interdisciplinary focus at UCLA, the School of Law formed a partnership in 2005 with the Anderson Graduate School of Management to create the Ziman Center for Real Estate. The center is firmly grounded in the scholarship and teaching missions of both schools, and offers practical application principles that help real estate industry professionals, public officials, and business people make critical policy and business decisions. The center truly bridges the divide between research and practice, and offers students a full range of coursework that supplies a holistic view of real estate issues.

School of Nursing

Linda P. Sarna, RN, PhD, FAAN, Dean

School of Nursing
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310-825-7181

Student Affairs e-mail

The UCLA School of Nursing enjoys a national and international reputation for excellence in teaching, research, and clinical practice.

A strong scientific basis underlies the teaching of nursing practice, leadership, and research. Related clinical experiences are arranged within the Ronald Reagan UCLA Medical Center, its affiliates, and in selected community sites.

The bachelor’s degree program prepares nurses as generalists with special skills in primary, secondary, and tertiary prevention and care within a population-based context; leadership; and evidence-based practice. The master’s degree program prepares nurses as generalists in hospital-based care or for advanced nursing practice as nurse practitioners or clinical specialists in a variety of settings and specialized areas of health care. The PhD program prepares scholars who conduct original research, generate new theories, and build the scientific basis for professional nursing practice. Research is both basic and applied. The DNP program prepares nurses who are currently functioning at an advanced level of practice as nurse practitioners, clinical nurse specialists, or nurse administrators. The professional practice doctorate is designed to develop competencies for advanced clinical and leadership roles beyond the master’s degree necessary for the higher levels of patient safety and quality of patient care. Leadership, health system knowledge, and quality—as well as health care policy and critical content—are emphasized in the curriculum.

The school has an exceptionally qualified faculty; many members have national and international reputations for excellence. The school is consistently ranked high for its teaching and research programs. The innovative curriculum is responsive to national needs in health care and the diversity of the patient population. Graduates of the program are sought by health care institutions and educational programs, and many alumni have become leaders in the field. Education in this research university, with its full range of academic disciplines, offers a rich environment for preparation in the health sciences.

History and Accreditation

In 1949, the Regents of the University of California authorized the School of Nursing as one of the professional schools of the UCLA Center for Health Sciences. This action paved the way in 1950 for the opening of an undergraduate traditional program in nursing leading to the Bachelor of Science (BS) degree. In 1997, the original traditional BS program curriculum was revised to meet the educational needs of students who are registered nurses with Associate Degrees or diplomas in nursing. In 2006, the school reinstated a traditional/prelicensure BS program with admission at the freshman level. In 2010, the BS (Generic/Prelicensure) program was renamed to the BS (Prelicensure) program.

In 1951, a graduate program leading to the Master of Science (MS) degree in Nursing was established to prepare baccalaureate graduates for advanced practice nursing roles. In 1966, the Master of Nursing (MN) degree was established as
an alternate to the MS degree, which was discontinued in 1969. In 1996, the master’s degree designation was changed from MN to Master of Science in Nursing (MSN), which is still awarded to graduates prepared as nurse practitioners and clinical nurse specialists. In 2006, the school launched the master’s entry clinical nurse (MECN)/prelicensure option within the MSN degree program, which is designed for prelicensure students with bachelor’s degrees or higher education in another discipline.

In 1986, the Doctor of Nursing Science (DNSc) degree program was approved, and in 1987 the first doctoral students were admitted. In 1995, the doctorate degree designation was changed from DNSc to PhD in Nursing. In 2013, an en-route MS option was established within the existing PhD program. In 2015, UCLA approved conversion of the DNSc degree to a PhD for former DNSc graduates.

In 2018, the Doctor of Nursing Practice (DNP) program was approved. Graduates of the DNP program will be the leaders for the translation of research into practice. The DNP degree is designed to meet the dynamic needs of the national health care system to improve quality of care, promote patient safety, and reduce cost.

The prelicensure (BS and MECN) and advanced practice master’s programs are approved by the California Board of Registered Nursing. In 2011, the Commission on Collegiate Nursing Education (CCNE) accredited the existing bachelor’s and master’s degree programs for a term of 10 years, the longest award period that can be granted.

Degrees

The School of Nursing offers the following degrees:

Nursing BS, MS, MSN, PhD
Nursing Practice DNP

Concurrent Degree Program

Nursing MSN/Management MBA
Admission is currently suspended to the Nursing and Management concurrent degree.

Philosophy of the School

The School of Nursing is guided by a philosophy that embodies the mission and goals of the University of California. The philosophy addresses nursing, the clients of nursing, and nursing students. The school is committed to an interdisciplinary learning environment.

Nursing encompasses clinical practice, education, research, consultation, leadership, management, and service to the profession; and to the local and global community. It involves individuals, families, groups, organizations, and communities as clients. The profession must consider the human and physical environments that interact with these clients who may have health conditions that range from wellness to illness. Nursing activities must therefore include health promotion and maintenance, intervention and treatment, rehabilitation and restoration, and palliation. At an advanced-practice level, nursing involves comprehensive health care that encompasses the responsibility and accountability for continuity of care across the health-illness spectrum.

Nursing research is both applied and basic; it has as its core actual or potential human responses to illness, and as its goal the development of nursing science. Guided by ethical standards that consider the perspectives of the client, the health care provider, and the larger society, nursing has a social mission that encompasses the right and responsibility to provide leadership in health policy and health care to all its clients regardless of disease status, gender, race, or culture.

People who receive client-centered nursing care are complex individuals who exist in relationship to others in their family and community. This complexity of person involves biological, behavioral, emotional, sociocultural, and spiritual dimensions. Each individual reflects a unique combination of these dimensions that interact dynamically with the environment. The clients of nursing are autonomous decision makers who have certain values and knowledge about themselves that are relevant and essential to successful health care outcomes. As a result, persons have a right and a responsibility to participate collaboratively in their care with the nurse and other health professionals.

Successful nursing students are active learners who bring unique gender, cultural, and ethnic life experiences to the professional practice of nursing. Students at all levels learn relevant theory, acquire practice skills, and are socialized into the profession of nursing. Increasing levels of complexity and sophistication of learning and socialization are
expected of students in the different programs. Whether at the beginning practice, advanced practice, or scholar level, nursing students learn to apply knowledge, skills, and professional attitudes in their practice that may include education, administration, and research. While students have the right and responsibility to participate in their own learning, faculty members have the right and responsibility to structure the teaching/learning environment to facilitate learning. Individual academic counseling and a variety of one-on-one, small-group, and interactive learning formats assist students to meet program and individual learning goals.

Undergraduate Admission

New undergraduate students are admitted in fall quarter only. BS (Prelicensure) students are admitted at the freshman and junior levels. See Nursing in the Curricula and Courses chapter for additional admission requirements.

Undergraduate Degree Requirements

Students must satisfy UC requirements, school requirements, and major requirements for award of a Bachelor of Science degree.

University Requirements

The University of California has two requirements that undergraduate students must satisfy in order to graduate: Entry-Level Writing or English as a Second Language, and American History and Institutions. See Degree Requirements in the Undergraduate Study chapter for details.

Students enrolled in English Composition 1A, 1B, and 2I must take each course for a letter grade.

School Requirements

There are six requirements that must be satisfied for award of a degree.

Unit Requirement

Students must complete with a passing grade a minimum of 180 units. At least 83 of the 180 units must be upper-division courses numbered 100 through 199. A maximum of 216 units is permitted. Students with advanced placement or international baccalaureate credit may exceed the unit maximum by the amount of that credit.

Scholarship Requirement

A 2.0 (C) grade-point average is required in all work attempted at the University of California, exclusive of courses in UCLA Extension and those graded Passed/Not Passed. A 2.0 (C) grade-point average is also required in all upper-division courses in the major taken at the University of California, as well as in all courses applied toward the general education and UC requirements. Each required nursing course in the school must be completed with a C or better grade (a C– grade is not acceptable). Elective courses may be taken on a Passed/Not Passed basis with prior approval, according to the policy stated in the Academic Policies chapter.

Academic Residence Requirement

Students are in residence while enrolled and attending classes at UCLA with a declared major in the School of Nursing, and must complete all units in the junior and senior years in residence at the school.

Writing Requirement

Students must complete the UC Entry-Level Writing or English as a Second Language (ESL) requirement prior to completing the school writing requirement. Students admitted to the school are required to complete a two-term writing requirement—Writing I and Writing II. Two courses in English composition are required for graduation. Both courses must be taken for letter grades, and students must receive a grade of C or better in each (a C– grade is not acceptable).
Writing I. The Writing I requirement must be satisfied within the first three terms of enrollment by completing English Composition 3, 3D, 3DS, or 3SL with a C or better grade (a C– or Passed grade is not acceptable).

The Writing I requirement may also be satisfied by scoring 4 or 5 on one of the College Board Advanced Placement Examinations in English; a combination of a score of 720 or better on the SAT Reasoning Test, Writing section (last administered in January 2016) and superior performance on the English Composition 3 Proficiency Examination; completing a course equivalent to English Composition 3 with a C or better grade (a C– or Passed grade is not acceptable) taken at another institution; or scoring 5, 6, or 7 on an International Baccalaureate Higher Level Examination.

Students whose native language is not English may need to take English Composition 1A, 1B, and 2I before enrolling in a Writing I course. All courses in the sequence must be passed with a C or better grade (a C– or Passed grade is not acceptable).

Qualifying examination scores and courses are determined by the school Faculty Executive Committee.

Writing II. The Writing II requirement must be satisfied within seven terms of enrollment by completing one course from a faculty-approved list of Writing II courses and available in the Student Affairs Office; see the Registrar’s Writing II requirement web page for details. The course must be completed with a C or better grade (a C– or Passed grade is not acceptable).

Writing II courses also approved for general education credit may be applied toward the relevant general education foundational area.

Transfer students with 90 or more units who have completed the Intersegmental General Education Transfer Curriculum (IGETC) will have satisfied the quantitative reasoning requirement. No transfer student is admitted to the school without completing, with a C or better grade (a C– grade is not acceptable), a college-level quantitative reasoning course that Undergraduate Admission accepts as equivalent to those approved by the Faculty Executive Committee. Approved courses include

- Biostatistics 100A, 100B
- Life Sciences 20, 30A, 30B, 40
- Mathematics 2, 3A, 31A, 31AL
- Philosophy 31
- Political Science 6, 6R
- Program in Computing 10A, 10B, 10C
- Public Affairs 60
- Statistics 10, 12, 13

General Education Requirements

General education (GE) is more than a checklist of required courses. It is a program of study that reveals to students the ways that research scholars in the arts, humanities, social sciences, and natural sciences create and evaluate new knowledge; introduces students to the important ideas and themes of human cultures; fosters appreciation for the many perspectives and diverse voices that may be heard in a democratic society; and develops the intellectual skills that give students the dexterity they need to function in a rapidly changing world.

This entails the ability to make critical and logical assessments of information, both traditional and digital; deliver reasoned and persuasive arguments; and identify, acquire, and use the knowledge necessary to solve problems.

Foundations of Knowledge

General education courses are grouped into three foundational areas: Foundations of the Arts and Humanities, Foundations of Society and Culture, and Foundations of Scientific Inquiry.

Ten courses (48 units minimum) are required. A course taken to meet the Writing II requirement may also be applied toward a GE requirement. Preparation for the major courses may overlap with the foundation courses.

Quantitative Reasoning Requirement

Students must demonstrate basic skills in quantitative reasoning. The requirement may be satisfied by completing one approved UCLA course (see list below) or an equivalent course within the first seven terms of enrollment. The course must be taken for a letter grade, and students must receive a C or better grade (a C– grade is not acceptable).

The requirement may also be satisfied by achieving an SAT Reasoning Test Mathematics Section score of 600 or higher or an SAT Subject Test in Mathematics score of 550 or higher. Approved UCLA courses and examinations, and qualifying scores, are determined by the school Student Affairs Committee. Approved courses are listed below. If approved for general education (GE) credit, applicable courses may also fulfill a GE requirement.

Transfer students with 90 or more units who have completed the Intersegmental General Education Transfer Curriculum (IGETC) will have satisfied the quantitative reasoning requirement. No transfer student is admitted to the school without completing, with a C or better grade (a C– grade is not acceptable), a college-level quantitative reasoning course that Undergraduate Admission accepts as equivalent to those approved by the Faculty Executive Committee. Approved courses include

- Biostatistics 100A, 100B
- Life Sciences 20, 30A, 30B, 40
- Mathematics 2, 3A, 31A, 31AL
- Philosophy 31
- Political Science 6, 6R
- Program in Computing 10A, 10B, 10C
- Public Affairs 60
- Statistics 10, 12, 13
Students must meet with the student affairs officer in the Student Affairs Office to determine the applicability of GE cluster courses toward Writing II or GE requirements.

Courses listed in more than one category can fulfill GE requirements in only one of the categories.

Foundations of the Arts and Humanities. Three 5-unit courses, one from each subgroup:

- Literary and Cultural Analysis
- Philosophical and Linguistic Analysis
- Visual and Performance Arts Analysis and Practice

Courses in this area supply perspectives and intellectual skills necessary to comprehend and think critically about our situation in the world as human beings. In particular, courses furnish the basic means to appreciate and evaluate the ongoing efforts of humans to explain, translate, and transform their diverse experiences of the world through such media as language, literature, philosophical systems, images, sounds, and performances. The courses introduce students to the historical development and fundamental intellectual and ethical issues associated with the arts and humanities and may also investigate the complex relations between artistic and humanistic expression and other facets of society and culture.

Foundations of Society and Culture. Three 5-unit courses, one from each subgroup and a third course from either subgroup:

- Historical Analysis
- Social Analysis

Courses in this area introduce students to the ways in which humans organize, structure, rationalize, and govern their diverse societies and cultures over time. Courses focus on a particular historical question, societal problem, or topic of political and economic concern in an effort to demonstrate how issues are objectified for study, how data is collected and analyzed, and how new understandings of social phenomena are achieved and evaluated. Because communication skills are essential in the nursing profession, Communication 10 is recommended for this foundational area.

Foundations of Scientific Inquiry. Four courses, two from each subgroup:

- Life Sciences
- Physical Sciences

Courses in this area ensure that students gain a fundamental understanding of how scientists formulate and answer questions about the operation of both the physical and biological world. Courses also deal with some of the most important issues, developments, and methodologies in contemporary science.

Foundations Course Lists. Creating and maintaining a general education curriculum is a dynamic process; consequently, courses are frequently added to the list. For the most current list of approved courses that satisfy the Foundations of Knowledge GE plan, consult with an academic counselor or see the Schedule of Classes.

Intersegmental General Education Transfer Curriculum

Transfer students from California community colleges must fulfill UCLA lower-division GE requirements by completing the Intersegmental General Education Transfer Curriculum (IGETC) prior to transfer. The curriculum consists of a series of subject areas and types of courses that have been agreed on by the University of California and the California community colleges. Because of course sequencing and the rigor of the program, students must fulfill the general education requirements prior to transfer.

Additional requirements are listed under Admission and Preparation for the Major in the Curricula and Courses chapter.

Major Requirements

There are two types of requirements that must be satisfied for award of a degree: preparation for the major and the major. See the Curricula and Courses chapter for details.
Policies and Regulations

Degree requirements are subject to policies and regulations, including the following:

Student Responsibility

Students should take advantage of academic support resources, but they are ultimately responsible for keeping informed of and complying with the rules, regulations, and policies affecting their academic standing.

Study List

The presentation of study lists by the students and their acceptance by the school evidences an obligation on the part of the students to faithfully perform the designated work to the best of their ability. Withdrawal from, or neglect of, any course entered on the study list—or a change in program could lead to a delay in degree completion.

Students are expected to follow the course sequence specified for their program. After the first term, they may petition to carry a study list exceeding 20 units, provided they have an overall grade-point average of 3.0 (8) or better and have attained at least a 3.0 (8) grade-point average in the preceding term with all courses passed.

Minimum Progress

Students are expected to complete satisfactorily at least 36 units during any three consecutive terms in residence; they are placed on probation if they fail to pass these units. Students are subject to dismissal if they fail to pass at least 32 units in three consecutive regular terms in residence.

Concurrent Enrollment

Enrollment at a non-UC institution or UCLA Extension while enrolled at UCLA is not permitted except in extraordinary circumstances. No credit is given for courses taken concurrently elsewhere without the approval of the school.

Credit Limitations

The following credit limitations apply to all undergraduate students enrolled in the school:

Advanced Placement Examinations. Credit earned through the College Board Advanced Placement (AP) Examinations may not be applied toward the general education requirements. Portions of AP Examination credit may be evaluated by corresponding UCLA course numbers (e.g., History 1C). If students take the equivalent UCLA course, unit credit for such duplication is deducted before graduation. See the school AP table for UCLA course equivalents.

Counseling Services

The school gives direction and furnishes information to interested potential applicants to the BS program through admissions information sessions. The schedule for these sessions, program information, and applications are available at the school website. Applicants may contact the Nursing Student Affairs Office by e-mail.

On entry, students are assigned a faculty adviser to aid in planning their total program. Advisers and student affairs officers continue meeting with students each term to evaluate progress, identify academic and personal needs and match them with available school and UCLA resources, confirm UC and course requirements, and maximize the students’ abilities to reach educational and professional goals. Due to the heavy course load that school programs require, students are advised against working full time.

Honors

Undergraduate students who achieve scholastic distinction may qualify for the following honors:

Dean’s Honors

The Dean’s Honors list recognizes high scholastic achievement in any one term. The following criteria are used to note Dean’s Honors on student records: a 3.75 grade-point average (GPA) in any one term, with at least 12 graded units. Students are not eligible for Dean’s Honors in any given term if they receive an Incomplete or a Not Passed (NP) grade, change a grade, or repeat a course. Dean’s Honors are automatically recorded on the transcript for the appropriate term.

Latin Honors

Students who have achieved scholastic distinction may be awarded the bachelor’s degree with Latin honors. To be eligible, students must have completed 98 or more units for a letter grade at the University of California and must have attained an overall grade-point average at graduation that places them in the top five percent of school graduates (GPA of 3.936 or better) for summa cum laude, the next five percent (GPA of 3.888 or better) for magna cum laude, or the next 10 percent (GPA of 3.782 or better) for cum laude. Coursework taken on the Education Abroad Program is applied toward Latin honors at graduation. The minimum GPAs required are subject to change on an annual basis. Required GPAs in effect in the graduating year (fall, winter, spring, summer) determine student eligibility. Students should consult their Degree Audits, or the Registrar’s honors web page, for the most current calculations of Latin honors.
Graduate Study

The Master of Science in Nursing (MSN) degree program offers prelicensure and postlicensure options. The master’s entry clinical nurse (MECN)/prelicensure program is designed for students with a bachelor’s degree in another discipline who wish to become registered nurses. The advanced practice registered nurse (APRN)/postlicensure program is for registered nurses with a bachelor’s degree in nursing who wish to prepare for an advanced practice role, such as nurse practitioner or clinical nurse specialist.

The PhD program, which includes an en-route MS option, prepares scholars who do original research, generate new theories, and build the scientific basis for professional nursing practice. Research is both basic and applied.

The DNP program prepares nurses who are currently functioning at an advanced level of practice as nurse practitioners, clinical nurse specialists, or nurse administrators. Leadership, health system knowledge, quality, and health care policy are critical content emphasized in the curriculum. The DNP degree is designed to meet the dynamic needs of the national health care system to improve quality of care, promote patient safety, and reduce cost.

Admission

Detailed information about the graduate academic programs is included in program requirements for UCLA graduate degrees.

For information on proficiency in English requirements for international graduate students, see Graduate Admission in the Graduate Study chapter.

Degree Requirements

For complete degree requirements, see program requirements for UCLA graduate degrees.

School of Theater, Film, and Television

Brian E. Kite, MFA, Interim Dean

School of Theater, Film, and Television
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Information e-mail

The UCLA School of Theater, Film, and Television consists of the Department of Theater and the Department of Film, Television, and Digital Media. Both are recognized national centers for higher education in production and performance as well as history, theory, and criticism.

Whether exploring the ancient and sacred roots of theater or the latest secular rituals enacted by popular film, creating a dramatic character for the bare stage or a dramatic narrative on screen, writing scripts or scholarly articles, or making digital movies or designing websites, all students in the school study both the aesthetics and cultural significance of theater, film, and television.

Through an intensive multidisciplinary curriculum, the school defines the inherent differences of theater, film, television, and new media; affirms their similarities; and encourages their interaction. As expressive art forms, modes of communication, and cultural interventions, theater, film, and television, and digital media have in common the ability and power to reflect and shape perception of a complex, diverse, and ever-changing world. As artists and scholars, faculty believe that the school has an obligation to reflect on this power and to use it responsibly.

Situated in the diverse and culturally rich environment of Los Angeles—and drawing on the many resources of the campus at large (including the Center for the Art of Performance at UCLA, Geffen Playhouse, and UCLA Film and Television Archive)—the school offers the ideal setting for students to engage in the study and practice of art forms essential to a healthy and dynamic society.

Departments and Programs

The Department of Theater and the Department of Film, Television, and Digital Media are essential components of the rich intellectual, cultural, and professional life of UCLA. Depending on the degree involved, school programs are either strongly professional in nature, or oriented toward advanced scholarly study and research in an atmosphere that recognizes and often draws on studio practice.

Students in undergraduate courses receive a broadly based, liberal arts education within the context of either theater or film and television.

The Master of Fine Arts (MFA) degree programs prepare talented and highly motivated students for careers in the worlds of theater, film, television, and digital production. The MA and PhD programs engage students in critical study and research of these media, including their history, aesthetics, and theory; and prepare students for advanced research within the context of college and university teaching, as well as for writing and research in a variety of media-related professions.

In the Department of Theater, approximately 300 undergraduate and 83 graduate students interact with over 40 faculty members, outstanding guests of national and inter-
national standing, and a professional staff of 35 in an exciting artistic community of theater production and study. The theater and performance studies program offers CPhil and PhD degrees for advanced scholarly study of theater and performance. Resources include four Macgowan Hall complex theaters with the latest technologies needed for creation, control, and integration of scenery, lighting, and sound. Areas of emphasis in the Master of Fine Arts program include acting, design, directing, and playwriting.

The Department of Film, Television, and Digital Media includes both production and critical studies programs, with approximately 275 graduate and 100 undergraduate students. Its 50 faculty members include leading scholars as well as members of the Los Angeles and international film and television professional communities. In production, graduate specializations are offered in the areas of film and television production, screenwriting, animation, and the producers program. The cinema and media studies program offers MA and PhD degrees for advanced scholarly study of film and television. Department resources in Melnitz Hall include three sound stages; three television studios; extensive editing, scoring, and viewing facilities; a complete animation laboratory for traditional, stop-motion, and computer-generated animation; and a laboratory and research facility for digital media.

The MA and PhD programs are supported by UCLA library collections and the UCLA Film and Television Archive, the largest in the U.S. outside the Library of Congress. This archive forms a unique and priceless resource for research and classroom instruction. MA and PhD faculty members and students also participate in various campus organized research units.

Teaching Credentials
Students interested in obtaining instructional credentials for California elementary and secondary schools should contact the Teacher Education Program, 1009 Moore Hall.

Degrees
The School of Theater, Film, and Television offers the following degrees and undergraduate minors:
- Film and Television BA, MA, MFA, CPhil, PhD
- Individual Field BA
- Theater BA, MFA
- Theater and Performance Studies CPhil, PhD

Undergraduate Minors
- Film, Television, and Digital Media
- Theater

Undergraduate Admission
In addition to the UC undergraduate application, departments require applicants to submit additional supporting materials. Information on departmental requirements is available on the school admissions web page.

Undergraduate Degree Requirements
Students must satisfy UC requirements, school requirements, and department requirements for a Bachelor of Arts degree.

University Requirements
The University of California has two requirements that undergraduate students must satisfy in order to graduate: Entry-Level Writing or English as a Second Language, and American History and Institutions. See Degree Requirements in the Undergraduate Study chapter for details.

Students enrolled in English Composition 1A, 1B, and 2I must take each course for a letter grade.

School Requirements
There are seven requirements that must be satisfied for award of a degree.

Unit Requirement
Students must satisfactorily complete for credit a minimum of 180 units for the bachelor’s degree. At least 64 of the 180 units must be upper-division courses numbered 100 through 199. A maximum of 216 units is permitted. Students with Advanced Placement Examination or International Baccalaureate Examination (transfer) credit may exceed the unit maximum by the amount of that credit.
Scholarship Requirement

Students must earn at least a 2.0 (C) grade-point average in all courses undertaken at the University of California for receipt of the bachelor’s degree, and in all upper-division courses in the major, and in all courses applied toward the general education requirements.

Academic Residence Requirement

Students are in residence while enrolled and attending classes at UCLA with a declared major in the School of Theater, Film, and Television. Of the last 45 units completed for the bachelor’s degree, 35 must be earned in residence at the school. No more than 18 of the 35 units may be completed in UCLA summer sessions.

Courses offered by UCLA Extension may not be applied toward any part of the residence requirements.

Writing Requirement

Students must complete the UC Entry-Level Writing or English as a Second Language (ESL) requirement prior to completing the school writing requirement.

Students admitted to the school are required to complete a two-term writing requirement—Writing I and Writing II. Two courses in English composition are required for graduation. Both courses must be taken for a letter grade, and students must receive a C or better grade in each (a C– grade is not acceptable).

Writing I. The Writing I requirement must be satisfied within the first three terms of enrollment by completing English Composition 3, 3D, 3DS, or 3SL with a C or better grade (a C– or Passed grade is not acceptable).

The Writing I requirement may also be satisfied by scoring 4 or 5 on one of the College Board Advanced Placement Examinations in English; a combination of a score of 720 or better on the SAT Reasoning Test, Writing section (last administered in January 2016) and superior performance on the English Composition 3 Proficiency Examination; completing a course equivalent to English Composition 3 with a C or better grade (a C– or Passed grade is not acceptable) taken at another institution; or scoring 5, 6, or 7 on an International Baccalaureate Higher Level Examination.

Students whose native language is not English may need to take English Composition 1A, 1B, and 2I before enrolling in a Writing I course. All courses in the sequence must be passed with a C or better grade (a C– or Passed grade is not acceptable).

Writing II. The Writing II requirement must be satisfied within the first six terms of enrollment by completing one course from a faculty-approved list of Writing II courses; see the Registrar’s Writing II requirement web page for details. The course must be completed with a C or better grade (a C– or Passed grade is not acceptable).

Applicable Writing II courses may also fulfill the upper-division nonmajor requirement and, if approved for general education (GE) credit, may fulfill a GE requirement.

Transfer students with 90 or more units who have completed the Intersegmental General Education Transfer Curriculum (IGETC) will have satisfied the Writing I and Writing II requirements. No transfer student is admitted to the school without completing, with a C or better grade (a C– grade is not acceptable), a college-level writing course that Undergraduate Admission accepts as equivalent to English Composition 3.

Foreign Language Requirement

Students may meet the foreign language requirement by scoring 3, 4, or 5 on the College Board Advanced Placement (AP) foreign language examination in Chinese, French, German, Italian, Japanese, or Spanish, or scoring 4 or 5 on the AP foreign language examination in Latin; presenting a UCLA foreign language proficiency examination score indicating competency through level three; or completing one college-level foreign language course equivalent to level three or above at UCLA with a grade of Passed or C or better.
Transfer students with 90 or more units who have completed the Intersegmental General Education Transfer Curriculum (IGETC) will have satisfied the foreign language requirement.

International students may petition to use an advanced course in their native language for this requirement. Students whose entire secondary education has been completed in a language other than English may petition to be exempt from the foreign language requirement.

Courses that may be used to fulfill this requirement are published on the Registrar’s [foreign language requirement](#) web page.

### Upper-Division Nonmajor Requirement

Students must complete at least three upper-division nonmajor courses (100-level) for a minimum of 12 units. Graduate (200-level) courses may not be applied toward this requirement.

A course used to satisfy the upper-division nonmajor requirement may also be used to satisfy the Writing II requirement.

A course used to satisfy the upper-division nonmajor requirement may not also be applied toward a foundation area in general education.

### General Education Requirements

**General education** (GE) is more than a checklist of required courses. It is a program of study that reveals to students the ways that research scholars in the arts, humanities, social sciences, and natural sciences create and evaluate new knowledge; introduces students to the important ideas and themes of human cultures; fosters appreciation for the many perspectives and diverse voices that may be heard in a democratic society; and develops the intellectual skills that give students the dexterity they need to function in a rapidly changing world.

This entails the ability to make critical and logical assessments of information, both traditional and digital; deliver reasoned and persuasive arguments; and identify, acquire, and use the knowledge necessary to solve problems.

**Foundations of Knowledge**

General education courses are grouped into three foundational areas: Foundations of the Arts and Humanities, Foundations of Society and Culture, and Foundations of Scientific Inquiry.

Ten courses (48 units minimum) are required. GE-approved Writing II courses may fulfill an appropriate foundational area. See the foundational area descriptions below for a breakdown of courses required.

Courses listed in more than one category can fulfill GE requirements in only one of the categories. A course used to satisfy a major requirement may not also be applied toward a GE requirement.

Students who successfully complete a year-long GE cluster series fulfill the Writing II requirement and complete 40 percent of their general education requirements.

**Foundations of the Arts and Humanities.** Five 5-unit courses, with no more than two from any one subgroup:

- Literary and Cultural Analysis
- Philosophical and Linguistic Analysis
- Visual and Performance Arts Analysis and Practice

Courses in this area supply perspectives and intellectual skills necessary to comprehend and think critically about our situation in the world as human beings. In particular, courses furnish the basic means to appreciate and evaluate the ongoing efforts of humans to explain, translate, and transform their diverse experiences of the world through such media as language, literature, philosophical systems, images, sounds, and performances. The courses introduce students to the historical development and fundamental intellectual and ethical issues associated with the arts and humanities and may also investigate the complex relations between artistic and humanistic expression and other facets of society and culture.

<table>
<thead>
<tr>
<th>General Education Requirements</th>
<th>Foundations of the Arts and Humanities</th>
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<tbody>
<tr>
<td></td>
<td>Literary and Cultural Analysis</td>
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<tr>
<td></td>
<td>Philosophical and Linguistic Analysis</td>
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<tr>
<td></td>
<td>Visual and Performance Arts Analysis and Practice</td>
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</table>

Courses listed in more than one category can fulfill GE requirements in only one of the categories. A course used to satisfy a major requirement may not also be applied toward a GE requirement.

**Foundations of Society and Culture**

<table>
<thead>
<tr>
<th>Historical Analysis</th>
<th>1 course</th>
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</thead>
<tbody>
<tr>
<td>Social Analysis</td>
<td>1 course</td>
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<tr>
<td>Third course from either subgroup</td>
<td>1 course</td>
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</table>

Total = 15 units minimum

**Foundations of Scientific Inquiry**

<table>
<thead>
<tr>
<th>Life Sciences</th>
<th>1 course</th>
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</thead>
<tbody>
<tr>
<td>Physical Sciences</td>
<td>1 course</td>
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</tbody>
</table>

Total = 8 units minimum

Total GE = 10 courses/48 units minimum

A course taken to meet the Writing II requirement may not also be applied toward a GE requirement.
Foundations of Society and Culture. Three 5-unit courses, one from each subgroup and a third course from either subgroup:

- Historical Analysis
- Social Analysis

Courses in this area introduce students to the ways in which humans organize, structure, rationalize, and govern their diverse societies and cultures over time. Courses focus on a particular historical question, societal problem, or topic of political and economic concern in an effort to demonstrate how issues are objectified for study, how data is collected and analyzed, and how new understandings of social phenomena are achieved and evaluated.

Foundations of Scientific Inquiry. Two courses (8 units minimum), one from each subgroup:

- Life Sciences
- Physical Sciences

Courses in this area ensure that students gain a fundamental understanding of how scientists formulate and answer questions about the operation of both the physical and biological world. Courses also deal with some of the most important issues, developments, and methodologies in contemporary science, addressing such topics as the origin of the universe, environmental degradation, and the decoding of the human genome. Through lectures, laboratory experiences, writing, and intensive discussions, students consider the important roles played by the laws of physics and chemistry in society, biology, Earth and environmental sciences, and astrophysics and cosmology.

Foundations Course Lists. Creating and maintaining a general education curriculum is a dynamic process; consequently, courses are frequently added to the list. For the most current list of approved courses that satisfy the Foundations of Knowledge GE plan, consult with an academic counselor or see the Schedule of Classes.

Reciprocity with Other UC Campuses

Students who transfer to UCLA from other UC campuses or who change their major from the College or another UCLA school and have met all GE requirements prior to attending UCLA or changing their UCLA major are not required to complete the School of Theater, Film, and Television GE requirements. Written verification from the dean at the other UC campus or UCLA College or school is required. Verification letters should be sent to UCLA School of Theater, Film, and Television, Director of Student Services, Box 951622, Los Angeles, CA 90095-1622.

Intersegmental General Education Transfer Curriculum

Transfer students from California community colleges have the option to fulfill UCLA lower-division GE requirements by completing the Intersegmental General Education Transfer Curriculum (IGETC) prior to transfer. The curriculum consists of a series of subject areas and types of courses that have been agreed on by the University of California and the California community colleges. Although GE courses are degree requirements rather than admission requirements, students are advised to fulfill them prior to transfer. The IGETC significantly eases the transfer process, as all UCLA GE requirements are fulfilled when students complete the IGETC courses. Students who select the IGETC must complete it entirely before enrolling at UCLA. Otherwise, they must fulfill the School of Theater, Film, and Television GE requirements.

Department Requirements

Departments generally set two types of requirements that must be satisfied for award of a degree: preparation for the major (lower-division courses) and the major (upper-division courses). Preparation for the major courses should be completed before beginning upper-division work.

Preparation for the Major

A major requires completion of a set of courses known as preparation for the major, which should be completed before upper-division work is undertaken. Each department sets its own preparation for the major requirements; see the Curricula and Courses chapter.

The Major

A major is composed of no fewer than 56 units, including at least 36 units of upper-division courses.

Students must complete their major with a scholarship grade-point average of at least 2.0 (C) in all courses in order to remain in the major. Each course in the school must be taken for a letter grade.

As changes in major requirements occur, students are expected to satisfy the new requirements insofar as possible. Hardship cases should be discussed with the department adviser, and petitions for adjustments should be submitted to the dean of the school when necessary.

Any department offering a major may require a general final examination.

Double Majors. Double majors in the School of Theater, Film, and Television and other academic units are not permitted.
Policies and Regulations

Degree requirements are subject to policies and regulations, including the following:

Student Responsibility

Students should take advantage of academic support resources, but they are ultimately responsible for keeping informed of and complying with the rules, regulations, and policies affecting their academic standing.

Study List

The study list is a record of classes that a student is taking for a particular term. Each term the study list must include from 12 to 19 units. The school has no provision for part-time enrollment. After the first term, students may petition to enroll in more than 19 units (up to 22 units maximum) if they have an overall grade-point average of 3.0 (B) or better and have attained at least a 3.0 (B) grade-point average in the preceding term with all courses passed. Excess units petitions must be filed and approved by the Student Services Office no later than the end of the third week of instruction.

First-term transfer students from any other UC campus may carry excess units on the same basis as students who have completed one or more terms at UCLA; however, they are not encouraged to do so.

Minimum Progress

During a regular term of enrollment, undergraduate students are required to enroll in a minimum of 12 units.

Students are expected to complete satisfactorily at least 36 units during any three consecutive terms in residence; they are placed on probation if they fail to pass these units. Students are subject to dismissal if they fail to pass at least 32 units in three consecutive regular terms in residence.

Changing a Major

Students in good academic standing who wish to change their major may petition to do so, provided they can complete the new major within the 216-unit limit. Petitions must be submitted to and approved by the department or committee in charge of the new major. Admission to certain majors may be closed or restricted; changes are normally not permitted if students are on probation or have begun their last term.

Students in the Theater major are not allowed to change their major to Film and Television at the end of their sophomore year.

Concurrent Enrollment

Enrollment at a non-UC institution or UCLA Extension while enrolled at UCLA is not permitted except in extraordinary circumstances. No credit is given for courses taken concurrently elsewhere without the approval of the school.

Credit Limitations

The following credit limitations apply to all undergraduate students enrolled in the school:

Advanced Placement Examinations. Credit earned through the College Board Advanced Placement (AP) Examinations may be applied toward certain UC/school requirements. Consult with a counselor in the Student Services Office to determine applicable credit. Portions of AP Examination credit may be evaluated by corresponding UCLA course numbers. If students take the equivalent UCLA course, unit credit for such duplication is deducted before graduation. See the school AP table for UCLA course equivalents.

Graduate Courses. Undergraduate students who wish to take graduate courses (200 level) for credit toward the bachelor’s degree must petition for advance approval of the department chair and the dean of the school, and must meet specific qualifications. Courses numbered in the 300, 400, and 500 series are not open for credit to undergraduate students.

UCLA Extension. Extension courses with the prefix X on those numbered in the 1 through 199, 200, 300, 400, or 800 series may not be applied toward the degree.

Upper-Division Tutorials. Credit for upper-division tutorials numbered 195 through 199 is limited to a maximum of 8 units in a single term, and a maximum of 32 units total for a letter grade.

Counseling Services

The school offers advising, program planning in the major and general education requirements, and individual meetings with departmental counselors, including a yearly degree check. Prior to enrollment in classes, each new student is assigned to a counselor in the major department. For additional counseling information, contact the Student Services Office, 103 East Melnitz Building.

Honors

Undergraduate students who achieve scholastic distinction may qualify for the following honors and programs:
Dean’s Honors

Dean’s Honors are awarded each term to students who complete their program of study with distinction according to criteria established by the dean of the school.

Latin Honors

Students who have achieved scholastic distinction may be awarded the bachelor’s degree with Latin honors. To be eligible, students must have completed 90 or more units for a letter grade at the University of California and must have attained an overall grade-point average at graduation that places them in the top five percent of school graduates (GPA of 3.946 or better) for *summa cum laude*, the next five percent (GPA of 3.913 or better) for *magna cum laude*, and the next 10 percent (GPA of 3.853 or better) for *cum laude*. Coursework taken on the Education Abroad Program is applied toward Latin honors at graduation. The minimum GPAs required are subject to change on an annual basis. Required GPAs in effect in the graduating year (fall, winter, spring, summer) determine student eligibility. Students should consult their Degree Audits, or the Registrar’s honors web page, for the most current calculations of Latin honors.

Graduate Study

The advanced degree programs offer graduate students with unique research opportunities when combined with special resources such as the Young Research Library, UCLA Film and Television Archive, Geffen Playhouse, Arts Library special collections, and UCLA exhibit and performance venues. Fellowships, grants, and assistantships are available through the dean of the Graduate Division. Student scholarship awards are available through the School of Theater, Film, and Television.

Admission

In addition to requiring that applicants hold a bachelor’s degree from an accredited U.S. institution or an equivalent degree of professional title from an international institution, each department in the school has limitations and additional requirements. Detailed information can be found in program requirements for UCLA graduate degrees. For information on the proficiency in English requirements for international graduate students, see Graduate Admission in the Graduate Study chapter.

Degree Requirements

Requirements to fulfill each degree objective vary according to the degree and the department. For complete degree requirements, see program requirements for UCLA graduate degrees.
Curricula and Courses

Course Lists

Departments and programs are listed alphabetically, with the College or school administering the program identified in the program heading. Curricula and courses are listed under each program. Every effort has been made to ensure the accuracy of the information presented. However, all courses, course descriptions, instructor designations, and curricular degree requirements described herein are subject to change or deletion without notice. Changes to course descriptions are available at the Registrar’s course descriptions web page. For current class offerings by term, see the Schedule of Classes.

For complete graduate degree requirements, see program requirements for UCLA graduate degrees.

Undergraduate Course Numbering

Undergraduate courses are classified as lower division and upper division. Lower-division courses (numbered 1–99) are often surveys offering preliminary introduction to the subject field. They are designed primarily for freshmen and sophomores, though upper-division students may enroll for unit and grade credit. Lower-division courses may not be applied toward graduate degrees.

Upper-division courses (numbered 100–199) are open to all students who have met the requisites stated in department requirements or the course description. Preparation generally includes at least one lower-division course in the subject or two years of college work. With approval of the major department, graduate students may take 100-series courses toward satisfaction of master’s degree requirements.

Undergraduate Seminars and Tutorials

Fiat Lux freshman seminars (numbered 19) are taught by faculty in areas of their expertise. They introduce freshmen to topics of intellectual importance and enable them to participate in critical discussion of these topics with a small group of peers. The seminar series takes its name from the motto of the University of California: Fiat Lux—Let There be Light!

Sophomore seminars (numbered 88) are department-sponsored courses designed to provide sophomores with the opportunity to participate in small seminars to enhance writing, verbal, and analytical skills.

Honors seminars and tutorials (numbered 89/189 and 89HC/189HC) are primarily designed for students in the College Honors Program. They are adjunct to lecture courses and explore lecture topics in more depth through supplemental readings, papers, or other activities.

Student Research Program tutorials (numbered 99) offer students entry-level research experiences. Students serve as apprentices working with an individual faculty member or in a research group. Students are graded on a Passed/Not Passed (P/NC) basis.

Upper-division seminars (numbered 190–194) are small seminars with between 15 and 20 students that focus on research practice or issues. Many are designed to be taken along with a tutorial course in the 195–199 series.

Upper-division tutorials (numbered 195–199) offer advanced opportunities for research through faculty-supervised internships and apprenticeships as well as honors research, directed research, and senior projects. Courses are structured by the instructor and student at the time they are initiated and are open to juniors (with a minimum 3.0 grade-point average in the major field), seniors, and graduate students. To enroll, students submit a contract (through MyUCLA) and have it approved by both the instructor and department chair.

Note: For current course descriptions, see the Registrar’s course descriptions web page.

Graduate Course Numbering

Graduate courses numbered 200–299 are generally open only to graduate students who have completed basic undergraduate courses in the subject. Courses and seminars in the 200 series can fulfill the minimum graduate course requirement for any advanced degree.

With departmental and instructor consent, and subject to requirements in the appropriate College or school, undergraduate students may enroll in 200-series courses for unit credit toward the bachelor’s degree. If students take a graduate course as an undergraduate, they may not apply that same course later toward a higher degree.

Graduate courses numbered 300–399 are highly specialized teacher-training courses that are not applicable toward UC minimum requirements for graduate degrees. They are acceptable toward the bachelor’s degree only at the discretion of the individual College or school.

Graduate courses numbered 400–499 are designed for professional programs leading to graduate degrees other than the MA, MS, and PhD. These courses may not be used to satisfy minimum graduate course requirements for the MA or MS degree but may apply as electives.

Individual study and research courses (numbered 500–599) are reserved for advanced study and are not open to undergraduate students. Courses are numbered as follows: 595/596, directed individual study or research; 597, preparation for master’s comprehensive or doctoral qualifying examination; 598, master’s thesis research and preparation; and 599, doctoral dissertation research and preparation. Courses numbered 501 are not individual study and research but are cooperative programs held in conjunction with USC. See individual department sections for specific limitations on 500-series courses.

Note: These definitions do not apply to courses in the School of Law, which maintains its own course numbering system.

Temporary Course Offerings

Courses that are temporary in nature, such as one-term-only or one-year-only, are not in the catalog. Their descriptions can be found in the Schedule of Classes.

Concurrent and Multiple-Listed Courses

Concurrently-scheduled courses (identified by a capital C before the course number) are pairs of courses, usually within a single department or program, for which credit is given at two levels—undergraduate and graduate. Concurrently-scheduled courses are offered at the same time and place with the same instructor, but work levels and performance standards are evaluated differently for students at each level. (Concurrently-scheduled courses as described here should not be confused with concurrent courses offered through UCLA Extension.)

Multiple-listed courses (identified by a capital M before the course number) are courses offered jointly by more than one department and/or subject area. They need not have identical course numbers, but all other aspects of the course—such as title, units, requisites, format, and level—must be the same. For example, Language in Culture is offered by the Anthropology Department (Anthropology M150) and the Linguistics Department (Linguistics M146). The course is listed under both departments.

UCLA Extension Courses

In general, students may not attend UCLA Extension for degree credit if they are enrolled in UCLA regular session at the same time. However, certain Extension courses (numbered 1–199), prefixed by XL or XLC in the Extension catalog, yield credit toward the bachelor’s degree. For details, see UCLA Extension in the Academic Policies chapter. Graduate students may petition to apply up to two XLC courses toward the master’s degree.
AEROSPACE STUDIES — AIR FORCE ROTC

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Los Angeles, CA 90095-1611

Aerospace Studies—Air Force ROTC
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AFROTC e-mail
Grant M. Fowler, MA, Lieutenant Colonel, Chair

Professor
Grant M. Fowler, MA, Lieutenant Colonel

Adjunct Assistant Professors
Jonathan R. Liscombe, MA, Major
Kekauluanauolu Nuuhiwa, BS, Captain

Scope and Objectives

In accordance with the National Defense Act of 1920 and with the concurrence of the Regents of the University of California, a unit of the Army Senior Division Reserve Officers’ Training Corps (ROTC) was established on the Los Angeles campus of the University of California in July 1920. Navy and Air Force units were established in 1938 and 1949 respectively.

This voluntary training in the Air Force ROTC program allows students to qualify for an officer’s commission in the Air Force while completing their college education. The ROTC curriculum is not considered an academic major, but ROTC courses may be taken as free electives and applied toward the total course requirements of a major. For students contracted in the Aerospace Studies Department, 36 units of aerospace studies credit may be applied toward the requirements for the bachelor’s degree.

The ROTC program is also available through UCLA Extension. All three ROTC departments offer voluntary four- and three-year programs for freshmen and sophomores. The Army and Navy/Marine Corps also offer a two-year program for current and transfer students. All have leadership laboratories that teach leadership and management skills.

All commissions are reserve commissions. Active duty obligation following commissioning varies depending on branch of service and designated career field or occupational specialty.

Scholarships

ROTC scholarships are awarded on a competitive basis to U.S. citizens regardless of parents’ income. Scholarships cover tuition, a book allowance, fees, and a tax-free monetary allowance during the academic year. Applications for scholarships may be obtained online or by calling 310-825-1742. Completed applications should be submitted prior to August 15 for early consideration and no later than December 1 of the year preceding college matriculation.

Air Force ROTC Program

Air Force ROTC offers selected students the opportunity to develop those attributes essential to positions of high responsibility as commissioned officers in the U.S. Air Force. This includes understanding Air Force history, doctrine, operating principles, and national security policies, demonstrating the ability to apply modern principles of management and human relations in the Air Force environment, and mastering of leadership theory and techniques. Students must demonstrate dedication to their assignments, willingness to accept responsibility, and the ability to think critically and communicate with clarity and precision.

Undergraduate Study

The Air Force ROTC program is available to full-time students with at least three years of undergraduate and/or graduate study remaining and consists of one to two years of the General Military Course, or GMC (Aerospace Studies 1A, 1B, 1C, 20A, 20B, and 20C), followed by a two-year Professional Officer Course, or POC (Aerospace Studies 130A, 130B, 130C, 140A, 140B, and 140C). For students completing the program in four years, GMC participation requires one hour of academic class and two hours of leadership laboratory each week during the academic year. For students completing the program in three years, GMC participation requires taking one course from Aerospace Studies 1A, 1B, or 1C, one course from 20A, 20B, or 20C, and two hours of leadership laboratory each week during the academic year. Students incur no military obligation for GMC participation unless they qualify and accept an Air Force ROTC scholarship during or after their sophomore year.

Students who complete the GMC and wish to enter the POC attend a field training course the summer following GMC completion. There is no obligation to apply for U.S. citizenship is required. Students are selected on a competitive basis with consideration given to academic major, grade-point average, aptitude examination scores, performance during an officer board interview, and a physical fitness test. Students selected for summer field training are given meals, quarters, clothing, and travel and incidental expenses. Subjects covered at field training include junior officer training, aircraft and aircrew orientation, career orientation, survival training, base functions, Air Force environment, and physical training. POC participation requires three hours of academic class and two hours of leadership laboratory each week during the academic year. Students enrolled in the POC incur a military obligation and are paid a monthly stipend during the academic year. Graduation and successful completion of the POC leads to a commission as a second lieutenant. Cadets then report to one of the challenging assignments in the Air Force.

Aerospace Studies

Lower-Division Courses

Freshman Year

A. Leadership Laboratory. (No credit) Laboratory, three hours. Mandatory for and limited to Air Force ROTC cadets. Provides cadets with practical command and staff leadership experiences through performance of various tasks within framework of organized cadet corps. As integral part of aerospace studies curriculum, provides experiences designed to develop leadership potential and serves as orientation to active duty. P/NP grading.

1A-1B-1C. Heritage and Values. (2–2–2) Lecture, one hour. Introduction to U.S. Air Force. Examination of general aspects of Department of Air Force, leadership, benefits and opportunities for officers. Foundation for becoming airmen by outlining heritage and values. Provides historical perspective through lessons on war and U.S. military, Air Force operations, principles of war, and airpower. Provides students with understanding for employment of air and space power, from institutional, doctrinal, and historical perspectives. Students are introduced to Air Force way of life and gain knowledge on what it means to be airmen. P/NP or letter grading.

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

Sophomore Year

20A-20B-20C. Team and Leadership Fundamentals. (2–2–2) Lecture, one hour. Designed to provide fundamental understanding of both leadership and team building. Cadets are taught many layers of leadership, including listening, understanding themselves, being good follower and efficient problem solving. Students apply these leadership perspectives when completing team building activities and discussing conflict management. Demonstration of basic verbal and written communication skills. P/NP or letter grading.

Upper-Division Courses

130A-130B-130C. Air Force Leadership Studies. (4–4–4) Lecture, three hours. Requisites: courses 1A, 1B, 1C, 20A, 20B, 20C. Designed to provide cadets with leadership overview. Basic leadership skills for cadets beginning leadership role in detachment. Lessons on military relationships, and rules that military members must follow when interacting with enlisted members and officers. Continuation of advanced skills and ethics training in preparation for becoming officer and supervisor. Introduction to variety of leadership topics in preparation to be effective leaders. P/NP or letter grading.

140A-140B-140C. National Security Affairs/Preparation for Active Duty. (4–4–4) Lecture, three hours. Requisites: courses 1A, 1B, 1C, 20A, 20B, 20C. Study of national security processes, regional studies, advanced leadership ethics, and Air Force doctrine. Special topics focus on military as profession, officerhood, military justice, civilian control of military, preparation for active duty, and current issues affecting military professionalism. Within this structure, continued emphasis on refining communication skills. P/NP or letter grading.

197. Individual Studies in Aerospace Studies. (2 or 4) Tutorial, three hours. Limited to juniors/seniors. Individual intensive study, with scheduled meetings to be arranged between faculty member and student. Assigned reading and tangible evidence of mastery of subject matter required. May be repeated for credit. Individual contract required. P/NP or letter grading.
African American Studies

College of Letters and Science

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African American Studies
310-825-9821

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Tyrene C. Howard, PhD (Pritzker Family Endowed Professor of Education to Strengthen Families)
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Shana L. Redmond, PhD
Caroline A. Streeter, PhD

Assistant Professors
Karida L. Brown, PhD
Ugo F. Edu, PhD
Kyle T. Mays, PhD
Sobukwe O. Odinga, PhD
S.A. Smythe, PhD
Alden H. Young, PhD

Scope and Objectives

The Department of African American Studies offers a Bachelor of Arts degree, an undergraduate African American Studies minor, a Master of Arts degree, and a concurrent degree program (African American Studies MA/Law JD). A major or minor in this field offers a broadening of cultural experiences and perspectives for those seeking more information about African Americans and the African diaspora. Career-wise, all students profit from African American studies courses in an era when employers and academic institutions are actively seeking those with multicultural and interdisciplinary skills and backgrounds. The fundamental goal of the African American Studies curriculum is to offer students a comprehensive and multidisciplinary introduction to the crucial sociocultural and social justice issues facing African Americans and their counterparts in other areas of the African diaspora today. The curriculum is designed to meet this goal in two primary ways. First, it offers students an interdisciplinary exposure to particular features of the African American experience. Core courses offer an in-depth understanding of historical, anthropological, sociological, psychological, economic, and political aspects of African America. The curriculum also offers opportunities to study the literary, musical, and artistic heritage of peoples of African descent. Second, students analyze key issues through additional courses that bring to bear concepts, theories, and methods of traditional academic disciplines in areas such as cultural analysis and production, social justice, and public policy. Students may also do individualized study with a professor and/or an internship for course credit.

Undergraduate Study

African American Studies BA

Learning Outcomes

The African American Studies major has the following learning outcomes:

- Critical understanding of key historical moments in the field
- Critical engagement with humanistic and social-scientific approaches to the study of the African American experience
- Ability to perform research and use critical writing skills
- Critical understanding of the concepts of race and racism, and their relationship to other identities such as class, gender, and sexual orientation
- Knowledge of key African American aesthetic, literary, musical, and other cultural traditions
- Knowledge of key social-scientific theories that explain and describe the African American experience

Preparation for the Major

Required: Two courses from African American Studies N5, 6, M10A.

Transfer Students

Transfer applicants to the African American Studies major with 90 or more units must complete the following introductory courses if possible prior to enrollment at UCLA: one African American studies or civilizations of Africa course or equivalent. Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

Honors Program

African American Studies majors with grade-point averages of 3.5 or better are eligible for the honors option that requires the completion of a senior thesis under the guidance of an African American Studies faculty member. Students must take African American Studies 198 (independent study course) with an approved professor who oversees the thesis requirement. For more information, contact the student affairs officer in the department.

African American Studies Minor

The African American Studies minor is designed for students who wish to augment their major program of study with courses from various disciplines germane to African American studies. To enter the minor, students must be in good academic standing (2.0 grade-point average), have completed 45 units, and file a petition with the African American Studies student affairs officer.

Required Lower-Division Courses (9 to 10 units):
Two courses from African American Studies M5, 6, M10A.

Required Upper-Division Courses (20 to 25 units):
Five upper-division African American studies courses.

No more than 4 graded units of African American Studies 195, 197, 198, and 199 may be applied toward the minor.

The Major

Required: Twelve upper-division courses as follows:
(1) two history and/or literature courses selected from African American Studies M104A through M104D, M150D, M158A through M158E, M179A, (2) two upper-division breadth courses from any of the following departments or programs: American Indian Studies, Asian American Studies, Chicana and Chicanos Studies, or Gender Studies, and (3) a concentration of five courses in one of the following tracks and three courses in the other: (a) humanities—African American Studies M102, M103A, M103B, M103E, M104A through M104E, M107, M109, M111, CM135A, CM135B, M150D, M158A through M158E, M179A, 188A, 188B, C191, and (b) social sciences—African American Studies M114C, M118, M120, M144, M150D, M154C, M158A through M158E, M159P, M164, M165, M167, M172, M173, M178, M179A, 188A, 188B, C191, M194A, M194B.

No more than 8 graded units of African American Studies 195, 197, 198, and 199 may be applied toward the major.

Students are encouraged to engage in a culminating activity, such as an internship, independent study, honors thesis, service learning course, Center for American Politics and Public Policy program, University of California Center Sacramento program, Education Abroad Program, or other African American studies-related project or performance course.
African American Studies

Lower-Division Courses

1. Introduction to Black Studies. (5) Lecture, three hours; discussion, one hour. Introduction of methods, theories, conceptual frameworks, and key debates in black studies. Interrogation of how race structures notions of identity and meaning of blackness in relation to class, gender, and sexuality; essential role of African people in development of capitalism, liberalism, and democracy; what various disciplinary lenses and epistemologies (history, literature, sociology, geography, cultural studies, political theory, philosophy, etc.) reveal about experiences of black people in modern world. Key thinkers and ideas from across humanities and social sciences are highlighted. P/NP or letter grading.

M104. History of Africa to 1800. (5) [Same as History M101A.] Lecture, three hours; discussion, one hour. Exploration of development of African societies from earliest times to late 18th century. P/NP or letter grading.

M12A-M12B. African American Musical Heritage. (5-6) [Formerly numbered M110A-M110B.] (Same as Ethnomusicology M12A-M12B and Global Jazz Studies M12A-M12B.) Lecture, four hours; discussion, one hour. P/NP or letter grading. M12A. Sociocultural history and survey of African American music covering Africa and its impact on America; music of 17th through 19th centuries; minstrelsy and its impact on representation of African American music; blues, spirituals, and gospel; black music of Caribbean and Central and South America; and music of black Los Angeles. M12B. Sociocultural history and survey of African American music covering blues, pre-1947 jazz styles, rhythm 'n' blues, soul, funk, disco, hip-hop, and symbiotic relationship between recording industry and effects of cultural politics on black popular music productions.

M18. Leadership and Student-Initiated Retention. (2) [Same as American Indian Studies M18, Asian American Studies M18, and Chicana and Chicano Studies M18.] Seminar, two hours. Limited to freshmen/sophomores/first-year transfer students. Not open for credit to students with credit for M118. Exploration of issues in retention at UCLA through lens of student-initiated and student-run programs, efforts, activities, and services. Focus on populations with historically low graduation rates targeted by Campus Retention Committee. May not be applied toward departmental major or minor elective requirements. May be repeated once for credit. Letter grading.

19. Fiat Lux Freshman Seminars. (1 Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty, graduate students, and students. May be repeated one unit for credit. Letter grading.

99HC. Honors Contracts. (1) Tutorial, three hours. Limited to College Honors Program. Designed as adjunct to lower-division course. In individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

104C. African American Literature of 1960s and 1970s. (5) [Same as English M104C.] Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3 or 3H. Introductory survey of African American literature covering range of genres from late 1950s through 1970s. Topics include rise of Black Arts Movement of 1960s and emergence of black women’s writing in early 1970s, with focus on authors such as Lorraine Hansberry, Amiri Baraka, Alice Walker, Nikki Giovanni, Alice Walker, Ishmael Reed, Audre Lorde, Paule Marshall, and Ernest Gaines. P/NP or letter grading.

104D. Contemporary African American Literature. (5) [Same as English M104D.] Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3 or 3H. Introductory survey of African American literature from 1980s to present covering range of genres, with emphasis on diversity of perspectives and styles that have emerged over past 30 years or so. Authors may include Toni Morrison, August Wilson, Octavia Butler, Anna Deavere Smith, June Jordan, Charles Johnson, Rita Dove, P/NP or letter grading.

104E. Topics in African American Literature and Culture. (5) [Same as English M104E.] Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3 or 3H. Variable topics lecture course that provides opportunity to cover African American literature from wide range of theoretical, historical, formal, and thematic perspectives. Topics may include African American autobiographies and memoirs, 20th-century African American fiction, black diaspora literature, postmodern African American fiction, Afro-Futurism, and African American satire. May be repeated for credit with topic or instructor change. P/NP or letter grading.

M105B. African American Theater History: Minstrel Stage to Rise of American Musical. (4) [Same as Theater M105B.] Lecture, three hours. Designed for juniors/seniors. Exploration of extant materials on history and literature of theater as developed and performed by African American artists in America from minstrel stage to rise of American musical. Letter grading.

M103E. Modern African American Drama: Harlem Renaissance to Black Arts Movement. (4) [Same as Theater M103E.] Lecture, three hours. Survey and examination of African American plays from 1920s until birth of modern civil rights era. Examination of socio-historical context out of which the plays were written and critical essays that illustrate development of African American playwrights and their significant involvement in creation of diversified American theatrical tradition. Letter grading.

Graduate Study

Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Division website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Graduate Degrees

The Department of African American Studies offers the Master of Arts (MA) degree in African American Studies. A concurrent degree program (African American Studies MA/Law JD) is also offered.

African American Studies

Upper-Division Courses

M102. Culture, Media, and Los Angeles. (6) [Same as Asian American Studies M160 and Honors Colle- gium M102.] Lecture, four hours; screenings, two hours. History of race and ethnicity in Los Angeles; role of media in and society and its influence on contemporary cultural environment, specifically in Los Angeles; issues of representation as they pertain to race, ethnicity, gender, and sexuality. P/NP or letter grading.

M103A. African American Theater History: Slavery to Mid-1800s. (4) [Same as Theater M103A.] Lecture, three hours. Designed for juniors/seniors. Exploration of extant materials on history and literature of theater as developed and performed by African American art- ists in America from slavery to mid-1800s. Letter grading.
ical implications of work, and aesthetic experimentation of contemporary African American playwrights and movements. Letter grading.

105A. Ideology and Black Consciousness. (4) Lecture, three hours; discussion, one hour. How do we know what we know? Why do we think the way we think? Where does our knowledge of self come from? How do we know what we know? Why do we think what we think? What about jazz enables people to read their political tendencies—social freedom, political freedom, cultural freedom—on songs and jazz? How have the forms in jazz and black music evolved? How do historians uncover black women’s historical experiences in U.S. from antebellum era to present? How have intersecting forms of oppression impacted black women’s lives? How is difference constructed through interlaced overlapping systems of justice? How do historians uncover black women’s historical lives and what are challenges to such discoveries? Examination of black women’s individual and collective struggles for freedom from racism, sexism, and heteropatriarchy, as well as black women’s participation in and challenge to social movements, including suffrage, women’s liberation, civil rights, and black power. Investigation of black women’s role in political, cultural, and historical history, including their cultural productions. Letter grading.

105B. Issues in African-American Biography and Autobiography. (4) Seminar, four hours. Introduction of history of political philosophy of Pan-Africanism from its origins in 19th century. Critical reading of biographical and autobiographical sources to deepen understanding of major themes and critiques of Pan-African thought, including those of race and racial formation, gender and sexuality, capitalism and labor exploitation, and nationalism and state repression. Application of history and critical readings to students’ own lives and family history through researching and writing short autobiographical texts. Students gain experience in conducting research using archives and oral histories and genealogical and archival research. P/NP or letter grading.

106A. Africa and World. (4) Lecture, four hours; discussion, one hour. Introduction to historical and contemporary Africa, with focus on modern history, politics, and society. How did various issues impact today and in the future—from political discourses on independence, geopolitics of aid and development, cultural transmission and relationship with African diaspora, modern movement and migration, and debates on racial and geographic divide between Arab north and south of Sahara. P/NP or letter grading.

107. Cultural History of Rap. (5) Same as Ethnic-musicology M109, Global Jazz Studies M109.) Lecture, four hours; discussion, one hour. Introduction to development of rap music and hip-hop culture, with emphasis on musical and verbal qualities, philosophical and critical readings, gender representation, and influences on cinema and popular culture. P/NP or letter grading.

108. Jazz and Political Imagination. (4) Lecture, three hours; discussion, one hour. How has jazz come to represent political tensions between economic freedom and democratic values, threat to order and civil society, possibility of integration and racial harmony, black liberation and nationalism, conservatism, surrealism, socialism, etc., throughout 20th century? What about jazz enables people to read their political aspirations and hopes in what is primarily instrumentally, improvised music? Exploration of history of idea of poetry and how writers, activists, movements, and musicians understood politics of jazz. Exploration of political imaginations—here and abroad—in particular in jazz and question of freedom of political freedom of cultural and artistic freedom. P/NP or letter grading.

109. Women in Jazz. (4) Same as Ethnicmusicology M109, Gender Studies M109, and Global Jazz Studies M109.) Lecture, four hours; discussion, one hour. Survey of women in jazz and musical traditions from 1880s to present. Survey of women vocalists, instrumentalists, composers/arrangers, and producers and their impact on development of jazz. P/NP or letter grading.

111. Ellingtonia. (4) Same as Ethnicmusicology M111 and Global Jazz Studies M111.) Lecture, three hours. Music of Duke Ellington, his life, and far-reaching efforts. Ellington is known as Ellingtonia, is one of largest and perhaps most important bodies of music ever produced in U.S. Covers many contributions of other artists who worked with Ellington, such as composer Billy Strayhorn and musicians Johnny Hodges, Countie Williams, and Mercer Ellington. P/NP or letter grading.

113. Narratives of Justice: Disrupting School-to-Prison Pipeline—Arts, Activism, and Agency. (4) Same as Education CM123.) Lecture, four hours; discussion, one hour. How have intersecting forms of oppression impacted black women’s lives? How is difference constructed through interlaced overlapping systems of justice? How do historians uncover black women’s historical lives and what are challenges to such discoveries? Examination of black women’s individual and collective struggles for freedom from racism, sexism, and heteropatriarchy, as well as black women’s participation in and challenge to social movements, including suffrage, women’s liberation, civil rights, and black power. Investigation of black women’s role in political, cultural, and historical history, including their cultural productions. Letter grading.

114. African American Women’s History. (4) Same as Lesbian, Gay, Bisexual, Transgender, and Queer Studies M141.) Lecture, four hours. Historical examination of black women’s experiences in U.S. from antebellum era to present. By situating black women’s experiences within major historical transitions in American history, exploration of key themes, including gender formation, sexuality, labor and class, consumer nation, gender violence, reproduction, and role of law. How have intersecting forms of oppression impacted black women’s historical lives? How is difference constructed through interlaced overlapping systems of justice? How do historians uncover black women’s historical lives and what are challenges to such discoveries? Examination of black women’s individual and collective struggles for freedom from racism, sexism, and heteropatriarchy, as well as black women’s participation in and challenge to social movements, including suffrage, women’s liberation, civil rights, and black power. Investigation of black women’s role in political, cultural, and historical history, including their cultural productions. Letter grading.

120. Race, Inequality, and Public Policy. (4) (Same as Public Policy M120.) Lecture, three hours; discussion, one hour. Background in economics, sociology, or urban studies preferred but not required. Survey course to examine major debates and current controversies concerning public policy responses to social problems in urban America. Letter grading.

121. Afro-Indigenous History: from Enslavement and Settlement to Black Lives Matter and Indigenous Sovereignty. (4) Same as American Indian Studies M121.) Lecture, four hours; discussion, one hour. Examination of how race was developed through experiences of African-descended peoples and indigenous peoples in U.S. and beyond. Examination of key episodes in history. Topics include African and indigenous peoples’ history, enslavement, race, and classification. Enslavement and the construction of African and indigenous identities. Study takes broad, thematic approach. Topics include first encounters in Americas and the Americas; the construction of race and class; the enslavement of natives; and the resistance and survival of the indigenous peoples of the Americas. Three primary objectives: (1) to provide descriptive information about social, political, and eco-
nomic conditions of black community, (2) to analyze important political issues facing black Americans, (3) to sharpen students' analytical skills. P/NP or letter grading.


M150D. Recent African American Urban History: Funk Music and Politics of Black Popular Culture. (4) (Same as Chicana and Chicano Studies M150D.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Exploration of musical genre known as funk that emerged in its popular form during late 1960s and reached popular high point, in black culture, during 1970s. Funk, fusion of gospel, blues, jazz, rhythm and blues, soul, rock, and many other musical styles, offers students unique window into recent African American history. P/NP or letter grading.

M154C. Black Experience in Latin America and Caribbean I. (4) (Same as Political Science M154A.) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Exploration of Afro-American life: transition from Africa to New World cultures, during 17th and 18th centuries. Funk, fusion of gospel, blues, jazz, rhythm and blues, soul, rock, and many other musical styles, offers students unique window into recent African American history. P/NP or letter grading.

M154D. Black Experience in Latin America and Caribbean II. (4) (Same as Political Science M154B.) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Examination of slavery experiences in various New World slave societies, with emphasis on outlining similarities and differences among legal status, treatment, and slave cultures of North American, Caribbean, and Latin American slave societies. P/NP or letter grading.

M158B-M158C. Introduction to African-American History. (4-4) (Same as History M158B-M158C.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Survey of African-American experience, with particular emphasis on three great stages of Afro-American life: transition from Africa to New World slavery, transition from slavery to freedom, and transition from rural to urban milieus. P/NP or letter grading.

M158E. African American Nationalism in First Half of 20th Century. (4) (Same as History M158E.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Critical examination of African American search in first half of 20th century for national/group cohesion through collectively built institutions, associations, organized protest movements, and ideological self-definition. P/NP or letter grading.

M159P. Constructing Race. (4) (Same as Anthropology M159P and Asian American Studies M159P.) Lecture, three hours; discussion, one hour (when scheduled). Examination of race, socially constructed category, from anthropological perspective. Consideration of development of racial categories over time and in different regions, racial passing, multiracial identity in the United States. Race in popular culture, and race and identity. P/NP or letter grading.


M165. Sociology of Race and Labor. (4) (Same as Labor Studies M165 and Sociology M165.) Lecture, three hours; discussion, one hour. Limited to juniors/seniors. Overview of African American race/ethnicity, employment, and U.S. labor movement. Analysis of underlying racial divisions in workforce and how they evolved historically. Consideration of circumstances under which unions and workers have organized internationally, union governance, and impact of globalization on these dynamics. P/NP or letter grading.


M170A. Diasporic Nonfiction: Media Engagements with Memory and Displacement I. (4) (Same as Chicana and Chicano Studies M170A.) Seminar, three hours. Video production course, with emphasis on autobiographical, critical, and performance-based modes of nonfiction media making, drawing on practice of diasporic filmmakers who have grappled with suppressed collective memories of displacement, trauma, exile, and migration. What does it mean to make videos about memory in places where direct cues to memory of traumatic experiences are not at hand? How does remembering kin to remembering cannot be seen? Introduction to practices of diasporic filmmakers who have grappled with displaced. P/NP or letter grading.

M170B. Diasporic Nonfiction: Memory and Displacement II. (4) (Same as Chicana and Chicano Studies M170B.) Seminar, three hours. Video production course, with emphasis on autobiographical, critical, and performance-based modes of nonfiction media making, drawing on practice of diasporic filmmakers who have grappled with suppressed collective memories of displacement, trauma, exile, and migration. What does it mean to make videos about memory in places where direct cues to memory of traumatic experiences are not at hand? How does remembering kin to remembering cannot be seen? Introduction to practices of diasporic filmmakers who have grappled with displaced. P/NP or letter grading.

M170C. Diasporic Nonfiction: Memory and Displacement III. (4) (Same as Chicana and Chicano Studies M170C.) Seminar, three hours. Video production course, with emphasis on autobiographical, critical, and performance-based modes of nonfiction media making, drawing on practice of diasporic filmmakers who have grappled with suppressed collective memories of displacement, trauma, exile, and migration. What does it mean to make videos about memory in places where direct cues to memory of traumatic experiences are not at hand? How does remembering kin to remembering cannot be seen? Introduction to practices of diasporic filmmakers who have grappled with displaced. P/NP or letter grading.

M174. Intraracial Differences in 20th-Century Black America. (4) (Same as African American Studies 174, Chicana and Chicano Studies M174 and Labor Studies M174.) Seminar, three hours. Overview of nonviolence and its impact on social movements both historically and in its present context in contemporary society, featuring lectures, conversations, films, readings, and guest speakers. Exploration of how contributions of civil rights struggles and role of nonviolent action throughout recent U.S. history. Examination of particular lessons of nonviolent movements as they impact social change organizing in Los Angeles. P/NP or letter grading.

M175. Nonviolence and Social Movements. (4) (Same as Chicana and Chicano Studies M175 and Labor Studies M175.) Lecture, three hours; discussion, one hour. Overview of nonviolence and its impact on social movements both historically and in its present context in contemporary society, featuring lectures, conversations, films, readings, and guest speakers. Exploration of how contributions of civil rights struggles and role of nonviolent action throughout recent U.S. history. Examination of particular lessons of nonviolent movements as they impact social change organizing in Los Angeles. P/NP or letter grading.

M176. Race, Racism, and Law. (4) Lecture, four hours; discussion, one hour. Throughout American history, race relations have been inextricably linked to law. Black History Month presents challenges for law schools to promote diversity in student body. UNESCO has identified problems with various legal institutions, especially U.S. Supreme Court. Lawyers on all sides have often played pivotal roles in establishing legal standards defining political, economic, social, and psychological status of African Americans (and other racial and ethnic minorities). Historical overview and in-depth examination of selected major highlights of this legal developments, including Constitutional sources of race, legal foundations establishing and eliminating slavery, major Supreme Court decisions before and during civil rights era, and contemporary legal retreat from civil rights protections. Major legal protections and processes of law and legal profession in broader historical and political context. Letter grading.

M177. African Americans in Higher Education. (4) Lecture, four hours. Discussion and exploration of challenges facing black students at predominantly white institutions (PWIs), ways in which Proposition 209 has affected black student community, spaces on and off campus that empower students, and issues of access and equity in higher education. Critical discussions about student experiences/concerns/challenges at UCLA, addressing specific strategies for success, and notions of empowerment that provide context for students as undergraduate and graduate students at predominately white universities. Letter grading.

M178. Sociology of Caribbean. (4) (Same as Sociology M178.) Lecture, three hours; discussion, one hour. Limited to juniors/seniors. Historical sociology of Caribbean, with emphasis on colonialism and decolonization, development and underdevelopment, race-making institutions and evolution of race relations, nationalisms and migration. P/NP or letter grading.

M179A. Topics in African Culture. (5) (Same as English M179A.) Seminar, three or four hours. Enforced requisite: course M170A. Students complete 20- to 30-minute video projects about issues or experiences that play in the lives of collectives of diasporic peoples. They learn to propose, record, edit, and distribute one socially engaged nonfiction video and draw on their experiences from course M170A in choreographing dances, designing public performances, interviewing, and recording everyday life. P/NP or letter grading.

M179B. Afro-American Woman in U.S. (4) (Same as Gender Studies M179 and Psychology M179.) Lecture, two and one half hours. Designed for juniors/seniors. Impact of social, psychological, political, and economic forces which impact on interpersonal relationships of Afro-American women as members of large society and as members of their biological and ethnic group. P/NP or letter grading.

M179F. Nonviolence and Social Movements. (4) (Same as Chicana and Chicano Studies M175 and Labor Studies M175.) Seminar, three hours. Overview of nonviolence and its impact on social movements both historically and in its present context in contemporary society, featuring lectures, conversations, films, readings, and guest speakers. Exploration of how contributions of civil rights struggles and role of nonviolent action throughout recent U.S. history. Examination of particular lessons of nonviolent movements as they impact social change organizing in Los Angeles. P/NP or letter grading.

M181A. Research in Black Life, Institutions, and Culture. (4) Seminar, three hours. Interdisciplinary overview of black studies research perspectives and research methods. P/NP or letter grading.

M181B. Special Courses in African American Studies. (4) Lecture, three hours; discussion, one hour. Program-sponsored experimental or temporary courses as taught by visiting faculty members. May be repeated for credit with topic or instructor change. P/NP or letter grading.

M188B. Race and Public Policy. (5) (Same as Anthropology M188B.) Seminar, three hours. Exploration of range of public policies concerned with promoting civil rights of racial minorities, with focus on education, voting, and housing. Why did such policies initially arise? How have they since developed? How effective have they been in closing racial gaps? What is the condition of knowledge for thinking through contemporary debates surrounding policies that seek to redress racial discrimination in U.S. P/NP or letter grading.

M188A. Individual Studies for USIE Facilitators. (1) Enforced requisite: course M188A. Lecture and research. Letter grading. scaffolding support for individuals in the-
195. Community or Corporate Internships in Afro-American Studies. (4) Tutorial, four hours. Preparation: 3.0 grade-point average in major. Limited to junior/senior majors. Supervised individual research or investigation of topics in human development in educational contexts. Faculty supervisor to finalize course syllabus. Individual contract with faculty mentor required. May be repeated once. Letter grading.
African Studies

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Scope and Objectives

The intellectual objective of the African Studies MA program is to provide graduate students with the opportunity to engage in intensive study and research on Africa in an interdisciplinary basis. The program offers African area courses in a wide range of disciplines, including the fine arts, social sciences, humanities, and professional fields. A concurrent degree program is also offered where students can work for the MA in African Studies and the Master of Public Health (MPH) at the same time.

Academic flexibility draws many students to the program. Because there are more than 50 active faculty members on campus with African interest and experience in many disciplines, students have multiple options to design individualized programs suited to their specific interests.

Information on the undergraduate major and minor in African and Middle Eastern Studies and the minor in African Studies can be found in the International and Area Studies section.

Graduate Study

Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Division website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Graduate Degrees

The African Studies Program offers the Master of Arts (MA) degree in African Studies. A concurrent degree program (African Studies MA/Public Health MPH) is also offered.

African Studies

Graduate Courses


201B. Africa and Professions. (4) Seminar, three hours. Exploration of key contributions and debates of academic disciplines in African studies, with emphasis on professional dimension. Review of discipline's literature, resources, career opportunities, and professionals themselves. Letter grading.

296. Africanist Working Group. (1) Research group meeting, one hour. Collaborative exploration and discussion of current research and literature on modern Africa. Specific projects determined by research being conducted by working group participants. Activities include designing and refining research proposals, gathering and analyzing data, and interpreting and reporting results, as well as presenting research to receive critical feedback from other class participants. May be repeated for credit. S/U grading.

375. Teaching Apprentice Practicum. (1 to 4) Seminar, to be arranged. Preparation: apprentice personnel employment as teacher assistant, associate, or fellow. Teaching apprenticeship under active guidance and supervision of regular faculty member responsible for curriculum and instruction at UCLA. May be repeated for credit. S/U grading.

596. Directed Individual Study or Research. (2 to 8) Tutorial, to be arranged. Limited to graduate African studies students. May be repeated, but only 4 units may be applied toward minimum graduate course requirement. S/U or letter grading.

597. Preparation for MA Comprehensive Examination. (4) Tutorial, to be arranged. Limited to graduate African studies students. Normally taken only during term in which student is being examined. May not be applied toward minimum graduate course requirement. S/U grading.

598. Research for and Preparation of MA Thesis. (4) Tutorial, to be arranged. Limited to graduate African studies students. Normally taken only during term in which student intends to complete MA thesis. May not be applied toward minimum graduate course requirement. S/U grading.
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Gregson T. Shachter, PhD (Anthropology)
David Delgado Shorter, PhD (Anthropology, Gender Studies, World Arts and Cultures/Dance)
Shannon E. Speed, PhD, ex officio (Anthropology, Gender Studies)

Scope and Objectives
Because UCLA possesses a substantial number of faculty members in the humanities and social sciences engaged in teaching and conducting research on American Indians, the nation’s first interdisciplinary MA program in American Indian Studies was established here.

The Bachelor of Arts degree and the undergraduate American Indian Studies minor offer a general introduction for students who anticipate advanced study at the graduate level in American Indian studies, ethnic studies, and the traditional disciplines or careers in research, administration, public service, and community service related to American Indian communities.

The Master of Arts program draws primarily on existing courses in the participating departments, where research and research methodologies are of primary concern. Students are exposed to Indian-related research in a number of different disciplines; demonstration of research skills is required. Students graduate with the training they need to teach Native American studies or to serve in an administrative capacity in Indian programs or organizations.

The MA program ranks among the top Indian studies programs in the country.

Undergraduate Study
The American Indian Studies major is a designated capstone major. Seniors complete a research/service experience and participate in a tutorial where faculty members help them relate their course-derived academic experience to their original research/service efforts involving Native American communities. Through their capstone work, students demonstrate their skills at analyzing and synthesizing knowledge, show their capacity to work collaboratively with peers, and display their capacity to relate their academic research and discourse to Native American community needs and concerns. Students present their work at the academic year-end Research Symposium sponsored by the American Indian Studies Interdepartmental Program.

American Indian Studies BA

Capstone Major
The American Indian Studies BA program is designed to offer a coherent and comprehensive curriculum in American Indian cultures, societies, and contemporary issues in addition to valuable background in more traditional disciplines such as anthropology, art history, economics, education, history, law, linguistics, literature, sociology, and world arts and cultures. Students acquire a critical knowledge of the concepts, theories, and methods that have produced knowledge about American Indians in the traditional disciplines. Students are encouraged to develop a concentration—or special expertise—in these fields to accompany the major.

The curriculum encompasses the cultural, historical, political, and social experiences of Native Americans in the Americas. Through courses on Native American literature, languages, theater, and contemporary societies and through more culturally specific courses on California Indians, cultures of the Pueblo southwest, and so on, the major offers an in-depth and broad knowledge on the experience of Native Americans not only in the U.S. and Canada but in Mexico and elsewhere in Latin America as well.

Given the increasingly multicultural society of the U.S. and the economic revitalization of many Native American communities, a knowledge of American Indian studies greatly enhances the professional and scholarly contributions attainable for those seeking postgraduate degrees in various related disciplines and fields.

Learning Outcomes
The American Indian Studies major has the following learning outcomes:

- Demonstrated analysis and knowledge-synthesis skills gained through completion of written capstone thesis
- Identification of a key idea or theme of interest drawn from coursework
- Effective public presentation of selected theme in final paper and/or project
- Relation of academic research and discourse to Native American communities’ needs and concerns
- Communication of statistical and quantitative information to appropriate communities
- Display capacity to work collaboratively with peers to effectively analyze and synthesize knowledge

Preparation for the Major
Required: American Indian Studies M10 and two courses from Anthropology 3, Gender Studies 10, Political Science 40, Statistics 12. Each course must be completed with a grade of C or better.

Transfer Students
Transfer applicants to the American Indian Studies major with 90 or more units must complete as many of the following introductory courses as possible prior to admission to UCLA: one introduction to American Indian studies course and two courses from culture and society, introduction to gender studies, introduction to American politics, or introduction to statistical methods.

Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

The Major
Requirements are distributed according to certain categories to create a breadth of knowledge. Students are required to take a research methods course to become familiar with scholarly techniques of knowledge production and to critically regard academic research, as well as a course in either ethnic/race/gender relations or comparative indigenous studies. Additional courses are selected in the social sciences and humanities according to a distributional formula that encourages further specialization within either of these two broad areas while simultaneously adding additional breadth. Finally, American Indian Studies C122SL prioritizes the experiential dimension of involvement in Native American communities (either urban, reservation, or rancheria) through work that supplies service experience and/or supervised internship opportunities.

The 12 courses must fit one of the following regional emphases patterns: (1) Native North America—eight courses, including those mentioned below and additional electives on Native North American topics or (2) indigenous peoples of the Americas—eight courses, including at least four dealing with indigenous people in Central America and/or South America.

Students must complete 12 upper-division courses (48 units) as follows, with no more than 32 units from American Indian studies courses:

1. Ten core courses (40 units), including (a) American Indian Studies M161, (b) two language courses from Anthropology M150, 15S, Linguistics 114, (c) two history or law courses from American Indian Studies 140, 158, 170, History 149A, 149B, 157B, (d) one social sciences course from American Indian Studies C120, C121, C130, C175, C178, Anthropology 160A, or 162, (e) two expressive culture courses from American Indian Studies 180, Art History 137, CM139A, C139B, English 106, Ethnomusicology 106A, 106B, Theater 103F, 107, (f) one methodology course from Anthropology 138P, Art History 100, Community Health Sciences 181, Comparative Literature 100, Linguistics 160, Political Science 170A, Sociology 106A, 113, or World Arts and Cultures 195, and (g) either one ethnic/race/gender relations course (African American Studies M164, Anthropology M145Q, 145S, Asian American Studies 130A, 130B, 130C, 131A, 132A, 133, 134, Chicana and
American Indian Studies Minor

The American Indian Studies minor is designed for students who wish to augment their major program of study in the College of Letters and Science with a group of related courses from various disciplines germane to American Indian studies. The minor exposes students to Indian-related research and literature in a number of different disciplines, such as American Indian studies, anthropology, economics, history, political science, sociology, and theater.

To enter the minor, students must be in good academic standing (2.0 grade-point average), have completed 45 units, and file a petition at the American Indian Studies Center, 3220 Campbell Hall. All degree requirements, including the specific requirements for this minor, must be fulfilled within the unit maximum set forth by the College of Letters and Science.

Required Lower-Division Course (5 units): American Indian Studies M10 with a grade of C or better.

Required Upper-Division Courses (28 units): Seven courses selected from the following: (1) one American Indian languages and communications systems course (Anthropology 155 or Linguistics 114); (2) three history and social sciences courses from American Indian Studies C120, C210, C225SL, C310, C40, C58, C70, C75, C178, Anthropology 113Q, 113R, 114P, 114Q, 115B, Gender Studies 130, History 149A, 149B, 1578, Sociology M161; (3) three humanistic perspectives on language and expressive culture courses from American Indian Studies 180, Art History 137, CM139A, English 104, 180, Ethnomusicology 106A, 106B, Theater 103F. A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor, and at least 16 units applied toward the minor must be taken in residence at UCLA. Transfer credit for any of the above is subject to program approval; consult with the interdepartmental adviser before enrolling in any courses for the minor.

Each minor course must be taken for a letter grade, and students must have a minimum grade of C (2.0) in each and an overall grade-point average of 2.0 or better in the minor. Successful completion of the minor is indicated on the transcript and diploma.

Graduate Study

Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Division website.

In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Graduate Degrees

The American Indian Studies Program offers the Master of Arts (MA) degree in American Indian Studies. A concurrent degree program (American Indian Studies MA/LawJD) is also offered.

American Indian Studies Lower-Division Courses

C10. Introduction to American Indian Studies. (5) (Same as World Arts and Cultures M23.) Lecture, three hours; discussion, one hour; activity, one hour. Survey of selected Native North American cultures from pre-Western contact to contemporary period, with particular emphasis on early cultural diversity and diverse patterns of political, linguistic, social, legal, and cultural change in postcontact period. P/NP or letter grading.

M18. Leadership and Student-Initiated Retention. (2) (Same as African American Studies M118, Asian American Studies M168, and Chicana and Chicano Studies M118.) Seminar, two hours. Limited to freshmen/sophomores/first-year transfer students. Not open for credit to students with credit for course M118. Exploration of issues in retention at UCLA through lens of student-initiated and student-run programs, efforts, activities, and services. Focus on populations with historically low graduation rates targeted by Campus Retention Committee. May not be applied toward departmental major or minor elective requirements. May be repeated once for credit. Letter grading.

19. Fiat Lux Freshman Seminars. (1) Seminar; one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

98. Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to lower-division lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

Upper-Division Courses

M118. Student-Initiated Retention and Outreach Issues in Higher Education. (4) (Same as African American Studies M118, Asian American Studies M168, and Chicana and Chicano Studies M118.) Lecture, four hours. Exploration of issues in outreach and retention of students in higher education, especially through student-initiated programs, efforts, activities, and services, with focus on UCLA as case. May be repeated twice for credit. Letter grading.

C120. Working in Tribal Communities: Introduction. (4) Lecture, four hours. Through readings, discussion, and Native guest lecturers, students learn to participate with Native American communities engaged in political, social, and cultural processes of change and preservation. Development of proposal for Native nation-building project. Concurrently scheduled with course C220. Letter grading.

C121. Working in Tribal Communities: Preparing for Fieldwork. (4) Lecture, four hours. Through readings, discussion, and Native guest lecturers, students learn to participate within Native American communities engaged in political, social, and cultural processes of change and preservation. Development of project proposal for Native nation-building project. Concurrently scheduled with course C220. Letter grading.

C122SL. Working in Tribal Communities: Service Learning. (4) Seminar, one hour; fieldwork, four hours. Enforced requisite: course C121. Recommended: course C220. Participation in community-service learning project within Native American communities and organizations where students are mentored and supported by faculty members, other students, and project directors toward development of designed service learning tasks and contributing to project activities. May be repeated with consent of instructor. Concurrently scheduled with course C222SL. Letter grading.

M123. Afro-Indigenous History: From Enslavement and Settlement to Black Lives Matter and Indigeneous Sovereignty. (4) (Same as African American Studies M121.) Lecture, four hours; discussion, one hour. Examination of how race was developed through exclusion of African-descent and indigenous people in U.S. and beyond. Examination of key episodes in history. Using articles, books, documentaries, and contemporary popular culture, examination of relationship between African-descent and indigenous people. Study takes broad, thematic approach. Topics include first encounters in Americas and ideologies that led to enslavement and dispossession; period of enslavement and indigenous removal in 19th century; mid-20th-century social movements; and contemporary manifestations, especially solidarity shown between Black Lives Matter and Dakota Access Pipeline protesters. P/NP or letter grading.

C130. California Indian Strategies for Contempory Challenges. (4) Seminar, three hours. Through readings, discussion, and Native guest lecturers, introduction to contemporary issues and processes of self-directed social change and political, cultural, legal,

140. Federal Indian Law and Policy. (4) Lecture, four hours. Through readings, discussion, and Native guest lecturers, introduction to fundamental concepts and history of federal Indian law and policy. Investigation of contemporary policies and legal issues and exploration of Native responses to policy and law. Letter grading.

C145. Contemporary Indigenous Nations. (4) Seminar, three hours. Introduction to topics on contemporary indigenous nations, including social movements, social and cultural change and continuity, nation building, and approaches to language revitalization. P/NP or letter grading.

C158. Nation Building. (4) Lecture, three hours; fieldwork/research, nine hours. Limited to junior/senior American Indian Studies majors. Examination of historical interplay of federal policies with tribal cultures that have affected development of American Indian tribal nations. Current developments within Indian nations, including restructuring government, developing economies, and asserting cultural sovereignty to be studied. Concurrently scheduled with course C245. Letter grading.

M161. Comparative American Indian Societies. (4) (Same as Sociology M161.) Lecture, three hours. Required: course M10 or Sociology 1. Comparative and historical analysis of economic, political, and social changes in indigenous North American societies. Several theories of social change applied to selected case studies. Letter grading.

M162. Language Endangerment and Linguistic Revitalization. (4) (Same as Anthropology M156.) Lecture, three hours; activity, one hour. Required: course M10, Anthropology 4. Examination of causes and consequences of current worldwide loss of languages. Understanding and revelation of kinds of efforts that members of threatened heritage language communities have engaged in various language renewal practices. Examination of some diverse strategies that have been attempted, including immersion, language and culture classes, master-apprentice, interactive multimedia, mass media approaches, and community-resource approaches. Evaluation of effectiveness of these measures and of very imagery used to discuss language endangerment. P/NP or letter grading.


C170. California Indian History. (4) Lecture, four hours. Introduction to overview of California Indian history. Exploration of community histories, and contemporary California Indian history through readings, discussion, and Native guest lecturers. May be repeated for credit with topic change and consent of interdepartmental chair. Concurrently scheduled with course C270. Letter grading.

C175. Cultures of Native Southern California. (4) Lecture, three hours. Introduction to Southern California indigenous societies through readings, discussion of guest lecturers, and direct community participation. May be repeated for credit with topic and/or instructor change. Consistent with course C275. Letter grading.

C176. California Experiences in Native Cultural Resource Management. (4) Seminar, three hours. Exploration of creation and implementation of laws that affect cultural resource management in California, such as California Environmental Quality Act (CEQA), Native American Graves Protection and Repatriation Act (NAGPRA), AB 978 (California NAGPRA), American Indian Religious Freedom Act, National Environmental Policy Act (NEPA), and National Historic Preservation Act (NHPA), from applied standpoint. To understand goals and challenges of these laws, examination of series of cases from California sites. Concurrently scheduled with course C278. Letter grading.

180. Introduction to and Practicum in Native American Languages. (4) Lecture, three hours; laboratory, one hour. Development of an oral tradition to convey, read, and write at elementary level in Native American languages. Introduction to both phonological and grammatical structures, vocabulary, and cultural patterns of visual, oral traditions and interaction with culture. May be repeated with language change and approval of interdepartmental chair. Letter grading.

M186. Indigenous Film. (5) (Same as World Arts and Cultures M187.) Lecture, four hours; discussion, one hour. Introduction to study of indigenous filmic images and representations, with focus on selected ethnographic, documentary, animated, and feature films ranging from 1920 to present. P/NP or letter grading.

M187. Indigenous Studies. (4) Lecture, four hours. Variable topics selected from following: Myth and Folklore of Indigenous Societies; Contemporary American Indian Literature; Social Science Perspectives of American Indian Life; Law and American Indian; History of American Indians (cultural area); Dance and Music of American Indians (cultural area); American Indian Policy. Consult Schedule of Classes for topics and instructors. May be repeated twice for credit. Letter grading.

M187A. Special Topics in American Indian and Gender Studies. (4) (Same as Gender Studies M185A.) Lecture, three hours. Variable topics in American Indian and gender studies. May be repeated for credit with topic and/or instructor change. P/NP or letter grading.

189. Advanced Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to undergraduate lecture courses. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

189HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Directed individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

195. Community Internships in American Indian Studies. (4) Tutorial, two hours; fieldwork, eight hours. Required: course M10 or Honors Contract. Concurrently scheduled with course C278. Credit arranged through Center for Community Learning. Comparative study of race, gender, and indigeneity in relation to contemporary workplace dynamics. Students complete intern assignment, attend biweekly meetings with graduate student coordinator, and write final research paper. Faculty sponsor and graduate student coordinator construct series of reading assignments that examine issues related to internship site. Individual contract with supervising faculty member required. P/NP or letter grading.

197. Individual Studies in American Indian Studies. (2 to 4) Tutorial, three hours. Limited to juniors/seniors. Individual intensive study, with scheduled meetings to be arranged between faculty member and student. Assigned readings and tangible evidence of mastery of subject may be required. May be repeated for maximum of 16 units. Individual contract required. P/NP or letter grading.

198A-198B-198C. Honors Research in American Indian Studies. (4–4–4) Tutorial, one hour, activity, three hours. Concurrently scheduled with course C268. For credit in conjunction with M198A, which is enforced requisite to 198B. Limited to senior honors program students. Development and completion of honors thesis or comprehensive research project under direct supervision of faculty member. Each course may be repeated for credit. Individual contract required. Letter grading.


199C. Individual Studies: Capstone Synthesis. (4) Tutorial, three hours. Preparation: successful completion of eight upper-division major courses. Limited to seniors in American Indian Studies. Honors mem- bers help students relate their course-derived aca- demic experience to their original research/service ef- forts involving Native American communities. Comple- tion of research paper and presentation of student work at year-end Research Symposium required. Must be taken in conjunction with American Indian Studies C122SL or an alternative upper-division course approved by program chair and academic coordinator. Individual contract required. Letter grading.

Graduate Courses

M200A. Advanced Historiography: American Indian Peoples. (4) (Same as History M200W) Lecture, 90 minutes; seminar, 90 minutes. Introduction to culture- history of North American Indians and review of In- dian concepts of history. Stereotypical approach to content and methodologies related to Indian past that is interdisciplinary and multicultural in its scope. Letter grading.

M200B. Cultural World Views of Native America. (4) (Same as English M266.) Seminar, three hours. Exploration of written literary texts from oral cultures and other expressive cultural forms—dance, art, song, reli- gion, and traditional remediation—by American Indian peoples. As these traditional and tribal contexts have been translated into contemporary literary texts (fiction, poetry, essay, and drama). Survey, from sec- ondary sources, of interdisciplinary methodological approaches taken from literary analysis, structural anthro- pology, folklore, linguistics, and ethnomusicology. May be repeated for credit with instructor and/or topic change. Letter grading.
M200C. Contemporary Issues of American Indians. (4) (Same as Anthropology M244P and Sociology M275S.) Seminar, three hours. Introduction to most important issues facing American Indians as individuals, communities, tribes, and organizations in contemporary world, building on historical background presented in course M200A and cultural and expressive experience of American Indians presented in course M200B. Letter grading.

201. Introduction to Interdisciplinary Methods in American Indian and Indigenous Studies. (4) Lecture, three hours. Faculty present approaches to interdisciplinary studies and discuss their own research. Participation of faculty, students, and community. Focus on the development of faculty and student research and teaching. Historical overview of defining moments in American Indian political and social developments as basis for gaining deeper understanding of American Indian traditional traditions and contemporary development.

M207. Economic Principles and Economic Development in Indigenous Communities. (4) (Formerly numbered M200D.) (Same as Public Policy M270.) Seminar, two hours; discussion, one hour. Limited to graduate students. Familiarization with fundamental concepts, themes, and principles of economic development. Focus on indigenous communities broadly and contrasted with other regions, countries, and communities producing important concepts as opportunity cost, economic trade-offs, adverse selection, moral hazard, and discount rates through use of existing research and case studies. These basic concepts are important for graduate students who will be analyzing and evaluating research conducted on and for indigenous peoples and governments. S/U or letter grading.

M208. Native American Languages and Discourses of Indigeneity. (4) (Same as Anthropology M208L.) Seminar, three hours. Preparation: prior coursework in anthropology, linguistics, or American Indian studies. Close readings of books and articles on topics relating to Native American languages and discourse of indigenous communities. Topics include critical language documentation, multilingualism, indigenous language ideologies, policies and practices of publication and concealment, language revitalization, language and identity, language and construction of place, storytelling and performance, community/academic collaboration, language as intellectual property, linguistic expressions of indigeneity, and cultural sovereignty. Offers resources to understand situation of indigenous languages in a wide range of Native American communities. Students perform variety of roles in discussions, develop book reviews, grant proposals, critical essays, and—where appropriate—sections of their theses and dissertations. S/U or letter grading.

C220. Working in Tribal Communities: Introduction. (4) Lecture, four hours. Through readings, discussion, and Native guest lecturers, students learn to participate within Native American communities engaged in political, economic, development, and cultural processes of change and preservation. Development of proposal for Native nation-building project. Concurrently scheduled with course C120. S/U or letter grading.

C221. Working in Tribal Communities: Preparing for Fieldwork. (4) Lecture, four hours. Through readings, discussion, Native guest lecturers, and project participation, introduction to rules of conduct and skills necessary for success. Includes carry out community service project for Native American communities and organizations. Concurrently scheduled with course C121. S/U or letter grading.

C222SL. Working in Tribal Communities: Service Learning. (4) Seminar, one hour; fieldwork, four hours. Enforced prerequisite: course C221. Recommended: course C220. Participation in community service learning project within Native American communities and organizations where students are mentored and supported by faculty members, other students, and project directors toward completing assigned service learning tasks and contributing to project activities. May be repeated with consent of instructor. Concurrently scheduled with course C122SL. S/U or letter grading.

C228A-228B. Tribal Legal Systems. (228A: 3 or 4/ 228B: 1 or 2) Lecture, four hours. Course C228A is enforced prerequisite to 228B. Study of traditional and contemporary legal systems of Native American tribal nations. Detailed examination of several different tribal systems, including Navajo, Cherokee, Iroquois, and Hopi, with emphasis on diversity of tribal legal regimes, comparisons with Anglo-American legal systems, changes in tribal systems during period of contact with non-Indians, and relationship between tribal (legal system) and with other aspects of their cultures, such as religion and social structure. Independent research paper with focus on contemporary or historic topic required. Concurrently scheduled with Law 528. In Progress (228A) and S/U or letter (228B) grading.

C230. California Indian Strategies for Contemporary Challenges. (4) Seminar, three hours. Through readings, discussion, and Native guest lecturers, introduction to contemporary issues and processes of self-directed social change and political, cultural, legal, and economic processes of nation building in contemporary California. Students carry out community service project. Concurrently scheduled with course C130. S/U or letter grading.

C238A-238B. Tribal Legal Development Clinic. (238A: 3 or 4/238B: 1 or 2) Lecture, three hours. Course C238A is enforced prerequisite to 238B. Students provide nonlitigation legal assistance to Native American tribes and organizations. Projects include development and modification of tribal legal codes and constitutional provisions, creation of tribal dispute resolution processes, and drafting of intergovernmental agreements. Legislative drafting and cross-cultural representation skills emphasized. Faculty members meet with tribal leaders to inform them of availability of clinic services and determine whether clinic services are needed. Once students are assigned to particular projects, they meet with relevant tribal officials and community groups with travel funds supplied. Students learn tribal traditions, laws, and systems, including federal constraints on activities of tribal legal institutions, and culture of tribe they are representing. See Law 728. In Progress (238A) and S/U or letter (238B) grading.

C245. Contemporary Indigenous Nations. (4) Seminar, three hours. Introduction to topics on contemporary indigenous nations, including social movements, social and cultural change and continuity, nation building, law and justice relations, economic development, education, and socialization, international relations, comparative policy, colonialism, migration, national and social identities, and other issues and social cultural processes, seen as distinct from ethnicity, race, class. Discussion focuses on indigenous communities that have maintained self-government, territory, and culture. Investigation and search for analytic and policy patterns that give greater understanding and knowledge about current conditions and social and cultural processes of indigenous nations. Concurrently scheduled with course C145. S/U or letter grading.

C260. Comparative Indigenous Societies. (4) Lecture, two hours; discussion, two hours. Designed for graduate students. Investigation of detailed historical and contemporary ethnographic analyses of social change and cultural continuity within indigenous nations, with emphasis on the role of law in these processes. Also discussion of theories of change, comparative methodologies, and case materials. Letter grading.

265. Federal Indian Law I (4 or 6) Lecture, three to four hours. Overview of federal Indian law, including nature and history of tribal federal legal and political relationship; basic legal definitions within federal Indian law (such as what is Indian country); equal protection as applied to Native American tribes; canons of construction unique to Indian law; tribal sovereignty and its protection; basic questions of federal and state authority within Indian country; and tribal rights, federal, and state jurisdiction within Indian country according to default rules as well as special statutory regimes. May be concurrently scheduled with Law 267. S/U or letter grading.

C267A-267B. Federal Indian Law II. (1 to 8 each) (Same as Law M267.) Lecture, three hours. Repeatability, concurrent with M265A and M265B or M267A and M267B. Examination in-depth of principles and doctrines of federal Indian law as applied to property rights in land, cultural resources, hunting and fishing rights, water rights, and economic development. Special jurisdictional regimes established by federal statutes, such as Indian Child Welfare Act and Indian Gaming Regulatory Act, addressed. S/U or letter grading.

C267A, C267B. Federal Indian Law II. (1 to 8 each) (Same as Law M267B.) Lecture, three hours. Repeatability, concurrent with M265A and M265B or M267A and M267B. Course M267A is enforced prerequisite to M267B. Examination in-depth of principles and doctrines of federal Indian law as applied to property rights in land, cultural resources, hunting and fishing rights, water rights, and economic development. Special jurisdictional regimes established by federal statutes, such as Indian Child Welfare Act and Indian Gaming Regulatory Act, addressed. In Progress (M267A) and S/U or letter (M267B) grading.

C209. Healthcare for American Indians. (4) Lecture, two hours; discussion, one hour. Identification of traditional health beliefs, health practices, and health-care systems of American Indian tribes to understand role of U.S. government in healthcare services for Indian people. Survey of Federal Indian health programs and development of Indian Healthcare System and Tribal/Urban Indian Health programs to understand health problems that have affected American Indian people and definitions of contemporary health issues and measures taken to raise health status of American Indian people. Concurrently scheduled with course CM108. S/U or letter grading.

C270. California Indian History. (4) Lecture, four hours. Introduction to overview of California Indian history, specific tribal community histories, and/or contemporary California Indian history through reading, discussion, and fieldwork. May be repeated for credit with topic change and consent of interdepartmental chair. Concurrently scheduled with course C170. S/U or letter grading.

C272. Seminar: Cultural Property Law. (3 or 4) (Same as Law M251A.) Seminar, three hours. Exploration of identity, ownership, appropriation, and repatriation of both tangible and intangible cultural property—those items that are of great significance to cultural heritage management and cultural survival of people. Consideration of importance of preservation of cultural property as means of maintaining group identity, self-determination, and collective rights. Examination of both inter-
national and domestic law governing these issues, addressing such questions as How should cultural property be defined? Can cultural property be protected under existing intellectual property and cultural property regimes? How can we balance protection of cultural property and economic development? How can we balance protection of cultural property and scientific advancement? Examination of cultural property of groups in general, with emphasis on cultural property of indigenous peoples, including folklore, traditional knowledge, burial grounds, sacred sites, and ancient ceremonies and traditions. S/U or letter grading.

274. Good Native Governance, (4 or 6) Seminar. Three-hour seminar. Examination of legal issues integral to governance that Native American nations face in 21st century, including those that impact and shape political sovereignty, economic development, constitutional reform, membership criteria, cultural property protection, sacred sites, religious freedom, and safety and criminal law enforcement, among others. Emphasis on breadth of issues that lawyers working with and for Native nations must confront. Integration and highlighting of legal issues unique to Native nations within California. Materials from traditional law review articles, books, and case studies derived from field search to engage students in multidimensional settings that confront Native societies. May be concurrently scheduled with Law 637. S/U or letter grading.

C275. Cultures of Native Southern California. (4) Lecture, three hours. Introduction to Southern California Native cultures through readings, discussions, guest lectures, and direct community participation. May be repeated for credit with topic and/or instructor change and consent of interdepartmental chair. Concurrently scheduled with course C175. S/U or letter grading.

C278. California Experiences in Native Cultural Resource Management. (4) Seminar, three hours. Exploration of creation and implementation of laws that affect cultural resource management in California, such as California Environmental Quality Act (CEQA), Native American Graves Protection and Repatriation Act (NAGPRA), AB 678 (California NAGPRA), American Indian Religious Freedom Act, National Environmental Policy Act (NEPA), and National Historic Preservation Act (NHPA), from applied standpoint. To understand goals and challenges of these laws, examination of series of cases from California sites. Concurrently scheduled with course C178. S/U or letter grading.

375. Teaching Apprentice Practicum. (1 to 4) Seminar, to be arranged. Preparation: apprentice personnel employment as teaching assistant, associate, or fellow, teaching apprentice upon request and supervision of regular faculty member responsible for curriculum and instruction at UCLA. May be repeated for credit. S/U grading.


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**ANESTHESIOLOGY AND PERIOPERATIVE MEDICINE**

David Geffen School of Medicine
3304 Reagan UCLA Medical Center
Box 957403
Los Angeles, CA 90095-7403

**Anesthesiology and Perioperative Medicine**


**Scope and Objectives**

The medical student program in the Department of Anesthesiology and Perioperative Medicine focuses on the delivery of perioperative care to surgical patients. During their training in the department, students develop clinical skills of medical management of surgical patients, techniques of monitoring and invasive line placement, and airway management skills. They are assigned to work with an attending anesthesiologist and/or anesthesia resident on a daily basis in one of the operating room locations and participate in the preoperative evaluation and preparation of their patients and development of anesthetic plans. Students then observe how to prepare for and execute their anesthetic plan. They have opportunity to perform procedures as their abilities and the situation permit. In addition, the department’s Human Patient Simulator provides students with a simulated operating room setting where a variety of clinical situations are initiated so they can practice their clinical skills. Students are also expected to attend clinically oriented lectures on a wide range of anesthesia topics, including physiology, pharmacology, and critical care.

For more details on the Department of Anesthesiology and Perioperative Medicine and a list of the courses offered, see the department website.

**Anesthesia**

**Lower-Division Courses**

19. Flat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

99. Student Research Program. (1 to 2) Tutorial (supervised research or other scholarly work), three hours per week per unit. Entry-level research for lower-division students under guidance of faculty mentor. Students must be in good academic standing and enrolled in minimum of 12 units (excluding this course). Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP grading.

**Upper-Division Course**

199. Directed Research in Anesthesiology. (2 to 8) Tutorial, two hours. Limited to juniors/seniors. Supervised individual research or investigation under guidance of faculty mentor. Culminating paper required. May be repeated for credit. Individual contract required. P/NP or letter grading.

**ANTHROPOLOGY**

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**Anthropology**

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Department e-mail
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Aomar Boum, PhD, Undergraduate Vice Chair

**Professors**

H. Samy Alim, PhD (David O. Sears Presidential Endowed Professor of Social Sciences)
Andrew Aptar, PhD
H. Clark Barrett, PhD
Philippe I. Bourgois, PhD, in Residence
P. Jeffrey Brantingham, PhD
M. Kamari Clarke, PhD
Jason De Leon, PhD
Alessandro Duranti, PhD
Daniel M.T. Fessler, PhD (Bedari Kindness Institute Endowed Professor)
Alan Page Fiske, PhD
Linda C. Garro, PhD
Akhil Gupta, PhD
Laurie K. Hart, PhD
Douglas W. Hollan, PhD
Christopher M. Kelty, PhD
Paul V. Kroskover, PhD
Richard G. Leslie, PhD (Marilyn Beaudry-Corbett Endowed Professor of Mesoamerican Archaeology)
Nancy E. Levine, PhD
Purnima Manekar, PhD
Joseph H. Mansan, PhD
Norma C. Mendoza-Denton, PhD
Kyeyoung Park, PhD
Susan E. Perry, PhD
David D. Shorter, PhD
Susan E. Sloyomovics, PhD
Monica L. Smith, PhD (Navin and Pratima Doshi Professor of Indian Studies)
Shannon E. Speed, PhD
James W. Stigler, PhD
C. Jason Tropp, PhD
Yunxiang Yan, PhD

**Professors Emeriti**

Jeanne E. Arnold, PhD
Nicholas G. Blurton Jones, PhD
Robert Boyd, PhD
Karen B. Brodkin, PhD
Carole H. Browner, PhD
Christopher B. Donnan, PhD
Marjorie Hamness Goodwin, PhD
Sondra Hale, PhD
Allen W. Johnson, PhD
Gail E. Kennedy, PhD
Claudia I. Mitchell-Kernan, PhD
Michael Moerman, PhD
Philip L. Newman, PhD
Elinor Ochs, PhD
Sherry B. Ortnier, PhD
Wendell H. Oswalt, PhD
Merrick Posnansky, PhD
Dwight W. Read, PhD
Joan B. Silk, PhD
Charles S. Stanish, PhD
Mariko Tamanoi, PhD
Russell Thornton, PhD
Thomas S. Weisner, PhD
Abigail W. Bigham, PhD
Stephen B. Acabado, PhD
Wendell H. Oswalt, PhD
Hannah C. Appel, PhD
Linda C. Bohn, PhD
Robert B. Lemelson, PhD
Adjunct Assistant Professor

Associate Professors
Stephen B. Acabado, PhD
Abigail W. Bigham, PhD
Aomar Boum, PhD
Elizabeth A. Bromley, MD, PhD, in Residence
Erica A. Cartmill, PhD
Jessica C. Catellino, PhD
Erin K. Debenport, PhD
Min Li, PhD
Jessica W. Lynch Alfaro, PhD
Jemima Pierre, PhD
Brooke A. Sceleta, PhD
Gregson T. Schachner, PhD

Assistant Professors
Sahil Can Aciikoz, PhD
Hannah C. Appel, PhD
Molly M. Fox, PhD
Brian M. Wood, PhD

Adjunct Professor
Robert B. Lemelson, PhD

Adjunct Associate Professors
Tamar Kremer-Sadik, PhD
Tricia Toyoda, PhD

Adjunct Assistant Professor
Thomas A. Wake, PhD

Scope and Objectives

Anthropology, the broadest of the social sciences, is the study of humankind. One of the strengths of anthropology as a discipline is its holistic or integrative approach: it links the life sciences and the humanities and has strong ties with disciplines ranging from biology and psychology to linguistics, political science, and the fine arts. Anthropological study is appropriate for people with a wide variety of interests: human cultures and civilizations both present and past, human and animal behavior, particular regions of the world such as Africa, Asia, Latin America, Oceania, etc.

The Department of Anthropology recognizes the following four fields in anthropology:

Archaeology is the study of human cultures and the natural, social, ideological, economic, and political environments in which they operated in the recent and distant past. The graduate and undergraduate programs focus on methods of discovery (field and laboratory courses), strategies of analysis pertaining to long-term cultural evolution (theory, analytical, and topographical courses), and the unfolding of prehistory in many regions of the world, including North America, Mesoamerica, South America, and several parts of the Old World (regional courses). Faculty members have long-standing interests in the origins and evolution of complexity, including early human adaptations, the political organization of complex hunters/gatherers, the origins of early village life, and the emergence and florescence of ancient cities and states. Faculty members maintain programs of field research involving many students in North America, Mesoamerica, South America, and East and South Asia.

Biological anthropology is the study of humans and other primates from a Darwinian point of view. The program focuses on the evolutionary ecology of early hominids, extant primates, and contemporary humans and includes training in evolutionary theory, behavioral ecology, evolutionary psychology, paleoanthropology, paleoecology, primate behavior, and mathematical modeling. Faculty members associated with the program have engaged in fieldwork in Africa, Central America, and Southeast Asia where ongoing projects include work on primate behavior, hominid evolution, and evolutionary psychology.

Linguistic anthropology is an interdisciplinary field that addresses the manifold ways in which language, interaction, and culture mutually organize each other in different communities worldwide. Linguistic anthropologists at UCLA have a variety of backgrounds and research interests that include face-to-face communication, language contact and change, language and politics, language socialization across the lifespan, verbal art and performance, and the relation of language to ideology, mind, emotion, and identity. Courses are offered in ethnographic approaches to discourse analysis, field methods, language ideology, conversation analysis, language socialization, and communication in urban communities, as well as on cross-cultural language practices.

Sociocultural anthropology concerns the examination and understanding of social and cultural systems and processes, and the human capacities that enable them. Its goal is to understand their operation in specific settings and to understand the experience of individuals who live in these diverse systems. Faculty members have engaged in fieldwork in almost every area of the world, but most notably in Africa, Latin America, East and Southeast Asia, and Oceania. They have also engaged in ethnographic research among Americans with diverse ethnic identities and in various institutional settings.

Bridging the four primary subfields are several other dimensions of anthropological study, including psychocultural anthropology and medical anthropology. Courses are also offered in the history and theory of anthropology and a wide range of anthropological methods.

The department offers Bachelor of Arts and Bachelor of Science degrees and a minor in Anthropology for undergraduate students; the graduate program leads to the Master of Arts and PhD degrees. Studies in anthropology are particularly valuable for students planning careers in which an understanding of human behavior and cultural diversity is desirable, such as business, education, law, medicine, nursing, public health, social welfare, and urban planning. Because of its breadth of outlook, anthropology also offers an ideal basis for those seeking a general education in our increasingly interdependent world.

Undergraduate Study

Anthropology BA

Learning Outcomes

The Anthropology major has the following learning outcomes:

- Broad knowledge of archaeological, biological, sociocultural, and linguistic anthropology
- Familiarity with the history, methods, and current theoretical debates in the field
- General knowledge of, and developed skills working with, empirical and anthropological evidence
- Proficiency in library research, data interpretation, synthesis, and writing
- Proficiency formulating and answering relevant questions through critical reasoning, making use of current primary scientific literature, identification of appropriate sources, reading and understanding of papers, and discriminating research quality

Preparation for the Major

Required: Anthropology 1, 2, 3, 4. Each course must be taken for a letter grade, and students must have an overall grade-point average of 2.0 or better.

Transfer Students

Transfer applicants to the Anthropology BA major with 90 or more units must complete as many of the following introductory courses as possible prior to admission to UCLA: one human evolution course, one archaeology course, one sociocultural anthropology course, and one culture and communication course.

Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

The Major

The major is designed for students interested in an anthropological understanding of human behavior. One of the strengths of anthropology is its cross-cultural holistic and integrative approach with many fields, such as biology, history, linguistics, the social sciences, and many of the humanities.

To gain a comprehensive understanding of the discipline as a whole, students must take two courses in the sociocultural anthropology field and one course in each of the other three fields (see Scope and Objectives). Students may take any upper-division course in the given area to fulfill this requirement. Each course must be taken for a letter grade, and students must have an overall grade-point average of 2.0 or better.

Students must complete 11 courses (44 to 52 units) as follows: (1) two upper-division courses in the sociocultural anthropology field and one in each of the other three fields (archaeology, biological anthropology, and linguistic anthropology), (2) one upper-division regional cultures course, (3) one upper-division history theory course selected from 100, 110, 111, 120, 124Q, 130, 131, 136A, 140, M150, (4) one upper-division methodology course selected
from 110, CM110Q, C117, 126P, 135, 138P, M138Q, 151, 195CE, and (5) three additional upper-division anthropology courses. Students are strongly encouraged to enroll in 3 to 4 units of 89 and/or 189 courses to gain small seminar experience. Ideally, at least one of the units should be at the upper-division level.

Anthropology BS

Learning Outcomes
The Anthropology major has the following learning outcomes:

- Broad knowledge of archaeological, biological, sociocultural, and linguistic anthropology
- Familiarity with the history, methods, and current theoretical debates in the field
- General knowledge of, and developed skills working with, empirical and anthropological evidence
- Proficiency in library research, interpreting data, synthesis, and writing
- Demonstrated knowledge and understanding of mathematics, physical sciences, and life sciences to meet pre-medical-school requirements
- Proficiency formulating and answering relevant questions through critical reasoning, making use of current primary scientific literature, database searches, identification of appropriate sources, reading and understanding of papers, and discriminating research quality

Preparation for the Major

Required: Anthropology 1, 2, 3, 4; Chemistry and Biochemistry 1A, 14B, and 14C, or 20A, 20B, 20L, 30A, and 30AL; Life Sciences 30A, 30B, and 40 or Statistics 13, or Mathematics 3A, 3B, 3C, and Statistics 12, or Mathematics 31A, 31B, and Statistics 12; Physics 5A, 5B, and 5C.

Students must also complete one of two life sciences sequences—either Life Sciences 1, 2, 3, 4, and 23L, or 7A, 7B, 7C, and 23L. They may not substitute courses in either sequence.

Each course must be taken for a letter grade, and students must have an overall grade-point average of 2.0 or better.

Transfer Students

Transfer applicants to the Anthropology BS major with 90 or more units must complete as many of the following introductory courses as possible prior to admission to UCLA: one human evolution course, one archaeology course, one sociocultural anthropology course, one culture and communication course, two general biology courses for majors, one year of calculus, one year of general chemistry with laboratory, one year of general physics with laboratory, and one lower-division organic chemistry course.

Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

The Major

The major supplies an overview of human evolution and is designed to prepare students for careers in anthropology and the health sciences, including medicine, dentistry, public health, and nursing. Each course must be taken for a letter grade, and students must have an overall grade-point average of 2.0 or better.

Students must complete nine courses as follows: (1) two upper-division courses in the sociocultural anthropology field and one in each of the other three fields (archaeology, biological anthropology, and linguistic anthropology), (2) one upper-division regional cultures course, (3) one upper-division history/theory course selected from 100, 110, 111, 120, 124Q, 130, 131, 136A, 140, M150, and (4) two additional upper-division anthropology courses.

Students are strongly encouraged to enroll in 3 to 4 units of 89 and/or 189 courses to gain small seminar experience. Ideally, at least one of the units should be at the upper-division level.

Honors Program

The honors program offers research-oriented students an opportunity to engage in original research and analysis under the close supervision of faculty members and culminates in an honors thesis. To be admitted students should have a cumulative grade-point average of 3.0 overall and a 3.5 cumulative GPA in their upper-division Anthropology courses. The application for admission must be submitted during fall quarter. Ideal candidates should have junior or senior standing and have completed at least two upper-division anthropology courses. The proposal, research, analysis, and writing of the paper take place over four terms via Anthropology 191HA through 191HD. Course 191HA is taken in winter quarter and 191HB in spring quarter. Research should be done in summer, and courses 191HC and 191HD are taken in fall and winter quarters of the graduation year. Students should contact the departmental honors adviser early in their studies for more information.

Anthropology Minor

Students who wish to take a series of courses in anthropology, but major in another discipline, may be interested in the Anthropology minor. Students select courses from the four fields within anthropology (archaeology, biological anthropology, linguistic anthropology, sociocultural anthropology), although they are encouraged to focus the body of their coursework within one field.

To enter the minor, students must have an overall grade-point average of 2.0 or better.

Required Lower-Division Courses (10 units): Two courses from Anthropology 1, 2, 3, 4.

Required Upper-Division Courses (20 units minimum): Core course (Anthropology 111, 120, 130, 140, or M150) from one of the four anthropology fields listed above; four additional courses. Students are encouraged to concentrate their upper-division coursework within one field and are required to consult with the undergraduate adviser in planning their program of study.

A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor.

Each minor course must be taken for a letter grade, and students must have an overall grade-point average of 2.0 or better in the minor. Successful completion of the minor is indicated on the transcript and diploma.

Graduate Study

Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Division website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Graduate Degrees

The Department of Anthropology offers Master of Arts (MA) and Doctor of Philosophy (PhD) degrees in Anthropology.

Anthropology

Lower-Division Courses

1. Human Evolution. (Formerly numbered 7.) Lecture, three hours; discussion, one hour. Required as preparation for both bachelor's degrees. (Formerly numbered 8.) Lecture, three hours; discussion, one hour; required as preparation for both bachelor's degrees. Evolutionary processes and evolutionary past of human species. P/NP or letter grading.

2. Archaeology: Introduction. (5) Lecture, three hours; discussion, one hour; fieldwork. Required as preparation for both bachelor's degrees. General survey of field and laboratory methods, theory, and major findings of anthropological archaeology, including case-study guest lectures presented by several campus archaeologists. P/NP or letter grading.

3. Culture and Society. (5) Lecture, three hours; discussion, one hour; fieldwork. Required as preparation for both bachelor's degrees. Introduction to study of culture and society in comparative perspective. Examples from societies around world to illustrate basic principles of formation, structure, and distribution of human institutions. Of special concern is contribution and knowledge that cultural diversity makes toward understanding problems of modern world. P/NP or letter grading.

4. Culture and Communication. (5) Lecture. Three hours; discussion, one hour. Required as preparation for both bachelor's degrees. Introduction to study of communication from anthropological perspective. Formal linguistic methods compared with ethnographically oriented methods focused on context-bound temporal unfolding of communicative activities. Topics include language in everyday life and ritual events, socialization, literacy, multilingualism, miscommunication, political discourse, and art-making as cultural activity. P/NP or letter grading.

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

M67W. Making and Studying Modern Middle East. (5) Lecture, three hours; discussion, one hour. Required as preparation for both bachelor's degrees. Evolutionary processes and evolutionary past of human species. P/NP or letter grading.

M67W. Making and Studying Modern Middle East. (5) Lecture, three hours; discussion, one hour. Required as preparation for both bachelor's degrees. Evolutionary processes and evolutionary past of human species. P/NP or letter grading.
Upper-Division Courses

Archeology

100. History of Anthropology. (4) (Formerly numbered 182.) Lecture, three hours. Brief survey of development of Western social science, particularly anthropology, from the Renaissance to the present. Discussion of key terms and theoretical concepts of the discipline. P/NP or letter grading.

110. Principles of Archaeology. (4) (Formerly numbered 110P) Lecture, three hours; discussion, one hour (when scheduled). Requisite: course 2. INTENDED FOR students interested in archaeological and environmental careers. Survey of major topics in the field of archeology, including some of the major challenges of contemporary science, and a consideration of the ethical issues involved in conducting archaeological research. Lecture, discussion. P/NP or letter grading.

111Q. Introduction to Archaeological Sciences. (4) (Same as Ancient Near East CM169.) Lecture, three hours; laboratory, three hours. An introduction to the basic principles of scientific archeology. Emphasis on the role of archeology in contributing to the understanding of the human past. May include animal bones, plants, ceramics, rock art. Lecture, laboratory. P/NP or letter grading.

112P. Selected Topics in Historical Archaeology. (4) Lecture, three hours. REQUISITE: course 2. Lectures on selected topics in historical archaeology. Topics vary each semester. P/NP or letter grading.

112Q. Archaeology of Chieftoms. (4) (Formerly numbered 114L) Lecture, three hours. REQUISITE: course 2. Examination of chieftoms in anthropological record, with readings focused on theory and data from archaeological, historical, and ethnographic literature. Illustration of how people in ranked non-state societies created remarkably rich cultures over entire globe beginning several millennia ago in both Old World and Americas. P/NP or Letter grading.

112R. Cities Past and Present. (4) (Formerly numbered 119P) Lecture, three hours. REQUISITE: course 2 or 3. Examination of ancient and modern cities to evaluate how urban life continues to thrive as human social phenomenon. Contemporary observations compared with archaeological case studies, including South America, Asia, Africa, and ancient Near East. P/NP or letter grading.

112S. Politics of Past. (4) (Formerly numbered 115Q) Lecture, three hours. Requisite: course 2. Examination of social and cultural context of modern archaeology. Topical incursion into legal framework governing archaeologi- cal practice, relationships between archaeologists and descending peoples, and role of archaeology in current politics. P/NP or letter grading.

113P. Archaeology of North America. (4) Lecture, three hours. Prehistory of North American Indians; evolution of Indian societies from earliest times to (and including) contemporary Indians; approaches and methods of American archaeology. P/NP or letter grading.

113Q. California Archaeology. (4) Lecture, three hours. From earliest Californians through 10,000 years of history, study of diversity in California's original peoples. Aspects of the culture, ideology, ecology, and social and political organization of Cali- fornia Indians by Euro-Americans. P/NP or letter grading.

113R. Southwestern Archaeology. (4) Lecture, three hours. Examination of prehistory of American South- west from 11,000 years ago to historic times. Em- phasis on describing and explaining cultural variation and change, employing evolutionary perspective. Special attention to advent of farming and settled towns, large-scale interactive networks, abandonment of Four Corners area, and historic cultures. P/NP or letter grading.

114P. Ancient Civilizations of Mesoamerica. (4) Lecture, three hours. Archaeology of pre-Columbian na- tive cultures of Mesoamerica from late Pleistocene through Spanish conquest, with emphasis on forma- tive sociopolitical developments, classic period civili- zations, and Aztec society as revealed by archaeology, and early Spanish writing. P/NP or letter grading.

114Q. Ancient Civilizations of Andean South America. (4) (Formerly numbered 114R) Lecture, three hours. REQUISITE: course 2 or 3. Pre-Hispanic and Colonial period on the Andean South America, as revealed by archaeology and early Spanish writing. Incas and their predecessors in Peru, with emphasis on sociopolitical systems, economic patterns, religion, and aesthetic and intellectual achievements. P/NP or letter grading.

115. Archaeology of Egypt and Sudan. (4) (For- merly numbered 1119E) (Same as Ancient Near East M105.) Lecture, two hours; laboratory, three hours. Ancient Egypt is well known for iconic archaeological sites such as Giza Pyramids and Tomb of Tut- ankhamun. From these and thousands of less well- known sites, enormous variety of archaeological informa- tion can be gained. Through discussion of partic- ular archaeological themes, regions, or sites, examina- tion of methods of prehistoric and historic archaeology and how archaeological information contributes to an understanding of social, political, and religious history. Background provided for development of group re- search projects—finding resources, data gathering, analysis, interpretation, and presentation, and training on how to embark on research in this field. Computer lab- oratory component included in which student re- search is performed and presented in time map. P/NP or letter grading.

115P. Archaeology of Southeast Asia. (4) (Formerly numbered 116.) Lecture, three hours; discussion, one hour (when scheduled). REQUISITE: course 5 or 7. Archaeology of Harappan, early historic, and medieval periods in Indian subcontinent. Investigation of social organization and political structures such as Buddhism, as well as consideration of how past is in- terpret in present. P/NP or letter grading.

116G. Selected Topics in Archaeology of China. (4) (Formerly numbered 116L) Lecture, three hours. Reexamination of current developments and key issues in archaeology of early Chinese civilizations. Consult Schedule of Classes for topics and instructors. May be repeated for credit with topic change. P/NP or Letter grading.

116M. Archaeological Landscapes of China. (4) (Formerly numbered 116MS) (Same as Chinese M163.) Lecture, three hours; discussion, one hour (when scheduled). May be repeated for credit with topic change. P/NP or Letter grading.

118. Religion and Urbanism. (4) Lecture, three hours; discussion, one hour (when scheduled). A critical study of organized religion, especially the abiding influence of religion in world history. May be repeated with topic change. P/NP or letter grading.

119. Religion and Urbanism. (4) Lecture, three hours; discussion, one hour (when scheduled). May be repeated with topic change. P/NP or letter grading.
Biological Anthropology

120. Survey of Biological Anthropology. (4) Lecture, three hours; discussion, one hour (when scheduled). Requisite: course 1. Limited to juniors and seniors. In-depth survey of theory and research in biological anthropology, including evolutionary theory, genetics, primatology, human evolution, and human behavior. P/NP or letter grading.

124P. Human Behavioral Ecology. (Formerly numbered 124A) Lecture, three hours; discussion, one hour (when scheduled). Recommended requisite: course 1 or Life Sciences 1 or 7B. Survey of research on human social behavior with a focus on current evolutionary perspectives. Emphasis on current empirical studies of modern human behavior from an evolutionary perspective, including social organization, sexual division of labor, parenting strategies, conflict, and cooperation. P/NP or letter grading.

124Q. Evolutionary Psychology. (Formerly numbered 124Q) Lecture, three hours; discussion, one hour (when scheduled). Recommended requisite: course 1. Survey of research in evolutionary psychology. Review of relevant theory in evolution and genetics. Emphasis on empirical studies of modern human behavior from an evolutionary perspective, including social behavior, decision making, language, culture, and child development. P/NP or letter grading.

124R. Evolution of Language. (Formerly numbered 124R) Lecture, three hours; discussion, one hour (when scheduled). Recommended prerequisite: course 1 or 4 or Linguistics 1. Designed for juniors and seniors. How did human capacity for language evolve? Examination of origin of human language from biological, comparative, developmental, social and computational perspectives. Topics include evolutionary theory, linguistics, cognitive science, animal communication, language learning, language disorders, and computational models of language emergence. P/NP or letter grading.

124S. Evolution of Human Sexual Behavior. (Formerly numbered 124P) Lecture, three hours; discussion, one hour (when scheduled). Requisite: course 1. Examination of human sexual relations and social behavior from an evolutionary perspective. Emphasis on theories and evidence for differences between men and women in their patterns of growth, maturation, fertility, mortality, parenting, and relations with mates. P/NP or letter grading.

124T. Evolution of Personality. (4) Lecture, three hours; discussion, one hour (when scheduled). Recommended requisite: course 1 or Life Sciences 1 or 7B or Psychology 10. Evolutionary hypotheses for existence of stable differences among individuals in patterns of thought, emotion, and behavior. Descriptive accounts of personality structure (e.g., Big Five). Comparison of explanatory models including balancing selection, facultative calibration, and mutation-selection balance. P/NP or letter grading.

125P. Paleopathology. (4) (Formerly numbered 125Q) Lecture, three hours. Designed for juniors/seniors. Evidence of disease and trauma, as preserved in skeletal remains from prehistoric and modern human populations. Discussions of medical procedures (trepannations), health status, ethnic mutilation (cranial deformation, footbinding), cannibalism, and sacrifice and roles such activities have played in human societies. P/NP or letter grading.

125Q. Evolution of Genus Homo. (Formerly numbered 121C) Lecture, three hours. Requisite: course 1. Origin and diversification of Genus Homo, including australopithecines and Neanderthals. Morphology, ecology, and behavior of these groups. Course ends with appearance of modern humans. P/NP or letter grading.

125R. Primate Behavior Nonhuman to Human. (4) (Formerly numbered 128A) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Review of primate behavior as known from laboratory and field studies. Theoretical issues of animal behavior with special reference to nonhuman primates. Discussion of human behavior as product of such evolutionary processes. P/NP or letter grading.

126Q. Animal Communication. (4) (Formerly numbered M127.) Same as Communication M127. Lecture, three hours. Designed for anthropology and communication students. Evolution, functions, design, and diversity of animal communication systems such as bird song, dolphin calls, whale song, primate social signals, and human language. P/NP or letter grading.

126R. Hormones and Behavior in Humans and Other Animals. (4) (Same as Psychological Science M140 and Society and Genetics M140.) Lecture, three hours; discussion, one hour. Examination of hormones, and physiology and genetics involved in hormonal processes and function. Interactions among hormonal levels, environmental stimuli, and behavior. Evolution, parental behavior, development and emigration, stress, social behavior, dominance relationships, aggression, chemical communication, and reproductive suppression. P/NP or letter grading.

128S. Primate Genetics, Ecology, and Conservation. (4) (Same as Society and Genetics M142.) Seminar, three hours. Research on wild primates at different geographic scales, using readings from primary literature on primate genetics, ecology, and behavior. Study of paternity and kinship, intraspecific and interpopulation, population genetics, bio- geochemistry, systemsatics, phylogeny/phylo- nomics and comparative genomics. Utility and appropriateness of various markers considered for different research questions, such as ethics of hormonal studies and their implications for humans and other animals. Letter grading.

129S. Anthropology of Climate. (4) Lecture, three hours; discussion, one hour. Examination of recent attempts to synthesize both perspectives on human-environment interactions, and of how relationships between people are negotiated through management of place and space throughout time. Traces multiple theoretical frameworks and of beginning with early work in cultural ecology and including political ecology, environmental history, contested ontologies, and contemporary environmental justice. Traces the engagement of anthropological ethnographies (in text, film, and new media), study of historical movements of people across ecosystems, policies of managing common goods resources such as rivers and atmosphere, climate change adaptation strategies, and environmental contamination, and development of climate change adaptation strategies in hard-hit areas. P/NP or letter grading.

130. Anthropology of Migration. (4) Lecture, three hours; discussion, one hour (when scheduled). Introduction of different views on population movement from refugee crisis and migration tendencies to policies surrounding newcomers’ incorporation and anti-immigration political strategies. Examination of motivations for migration, both voluntary and involuntary movements (e.g., displacement, slave trades, or ethnographic studies). P/NP or letter grading.

133A. Historical Anthropology. (4) (Formerly numbered 133P.) Lecture, three hours; discussion, one hour (when scheduled). Production, consumption, and distribution of food, with particular emphasis on culture of food. Exploration of ecological history, class, power, hunger, ethnic identity, race, gender, sexuality, Food that shapes identities, desires, and needs in contemporary world. P/NP or letter grading.

133R. Anthropology of Movement. (4) Lecture, three hours; discussion, one hour (when scheduled). Photographic ethnography serves many purposes: as primary data, illustrations of works in book or film, documentation for disappearing cultures, evidence of fieldwork, material objects for museum exhibitions, and even works of art. Topics include relationships between subject and treatment of image, between art photog- raphy and ethnographic documentation, role of mu- seum photography and caption, social practice of taking pictures, and case study on photographing Mahn East and North Africa. P/NP or letter grading.

135R. Multimedia Ethnography. (4) (Formerly numbered 133R) Lecture, three hours; discussion, one hour (when scheduled). Study of European expeditions that carved out political boundaries within society. Critical issues of important areas in molecular biology relevant to case studies analyzed. Letter grading.

138. Anthropology of Religion. (4) (Formerly numbered 138) Lecture, three hours; discussion, one hour (when scheduled). Survey of religions of the world, with particular emphasis on religious diversity, and on analyzing phenomena occurring within these conversations. P/NP or letter grading.

136A-136B. Introduction to Psychological Anthropology. (4) (4) P/NP or letter grading. 136A. Historical Development. (4) Lecture, three hours; discussion, one hour (when scheduled). Requisite: course 3. Limited to juniors/seniors. Survey of field of psychological anthropology, with emphasis
136B. Current Topics and Research. (4) (Formerly numbered 135S.) Lecture; three hours. Requisite: course 3. Exploration of mutual relations between and recognition of, responses toward, and forms of deval- 
unt and abnormal behavior. P/NP or letter grading.

137P. Anthropology of Deviance and Abnormality. (4) (Formerly numbered 135T.) Lecture; three hours; discus-
sion, one hour (when scheduled). Designed for juniors/ 
seniors. Survey of field of psychological anthropology, 
with emphasis on current topics and research. Topics 
include study of social behavior, and development of 
chronic and psychological disorders. P/NP or letter 
grading.

137Q. Psychoanalysis and Anthropology. (4) (For-
merly numbered 135T) Lecture; three hours; discus-
sion, one hour (when scheduled). Exploration of mu-
tual relations between anthropology and psychoana-
lisis, considering both theory and method. History of 
and current developments in psychoanalysis; anthro-

138P. Field Methods in Cultural Anthropology. (5) 
(Formerly numbered 136.) Lecture, three hours; di-
cussion, one hour. Designed for juniors/seniors. In-
duction to skills and tools of data ascertainment 
through fieldwork in cultural anthropology. Emphasis 

on understanding and participation in the sociocultural 
context of field research. P/NP or letter grading.

138Q. Fieldwork in Asian American and Pacific 
Islander Communities. (4) (Formerly numbered 
M139P) (Same as Asian American Studies M143A.) 
Lecture, three hours; discussion, one hour. Introduc-
tion to qualitative research methods and application of 
method, toward cross-cultural psychoanalytic ap-
proach. P/NP or letter grading.

141. Careers in Anthropology. (4) (Formerly 
numbered 135S.) Lecture, three hours; discus-
sion, one hour (when scheduled). Exploration of 
mutual relations between anthropology and psychoana-
lisis, considering both theory and method. History of 
and current developments in psychoanalysis; anthro-

142P. Anthropology of Religion. (4) (Formerly 
numbered 156.) Lecture, three hours. Survey of vari-
ous methodologies and study of religious ide-
ologies and action systems, including understanding 
particular religions through descriptive and structural 
approaches, and identification of social and psycho-
ological factors that may account for variation in reli-
gious systems cross-culturally. P/NP or letter grading.

142Q. Ethnic and Religious Minorities. (4) Lecture, 
three hours. Analytical overview of ethnic and religious 
minorities in contemporary Middle East and North Af-

143. Economic Anthropology. (4) (Formerly num-
bered 153SP) Lecture, three hours, Requisite: course 3. 
Introduction to anthropological perspectives for inter-
est in economic analysis and its applications. P/NP or 
letter grading.

144. Linguistic Anthropology. (4) (Formerly num-
bered M158Q.) (Same as Language Studies M143A.) 
Lecture, three hours. Critical review of relevant theo-
etical issues using ethnography, case study, and presenta-
tions. Consult Schedule of Classes for topics and instruc-
tors. May be repeated for credit with topic change. P/NP 
or letter grading.

145P. Marriage, Family, and Kinship. (4) (Formerly 
numbered M151S) (Same as Gender Studies M154P) 
Lecture, three hours. Introduction to understanding of 
isinship in cross-cultural perspective and impact of 
kinship on interpersonal relationships, gender roles, 
and sociocultural systems. Reorganization of topics for 
discussion of formal ethnographic accounts. P/NP or 
letter grading.

145Q. Selected Topics in Gender Studies. (4) 
(Formerly numbered 154P) (Same as Gender Studies 
M154Q) Lecture, three hours. Recommended prepa-
ration: prior anthropological or gender studies courses. 
Designed for junior/senior social sciences majors. Com-
parative study of women's lives and gender systems 
and cultures from anthropological perspective. Critical 
analysis of the practice of using ethno-
ography, case study, and presentations. Consult 
Schedule of Classes for topics and instructors. May be 
repeated for credit with topic change. P/NP or letter 
grading.

145R. Women and Social Movements. (4) (For-
merly numbered M155Q) (Same as Gender Studies 
M154R) Lecture/discussion, three hours. Recom-
mended preparation: prior gender studies or anthro-
pology courses. Comparative studies of social move-
ments (e.g., nationalist, socialist, liberal/reform), be-
ginning with Russia and China and including Cuba, 
Algeria, Guinea-Bissau, Mozambique, Nicaragua, and 
Iran. Analysis of women's participation in social trans-
formations and centrality of gender interests. P/NP or 
letter grading.

145S. Culture, Gender, Sexuality. (4) (Formerly 
numbered M134.) Lecture, three hours. Comparative anal-
ysis of role of environment, history, and culture in 
structuring of patterns of gender and sexuality. P/NP 
or letter grading.

146. Urban Anthropology. (4) (Formerly numbered 
167.) Lecture, three hours; discussion, one hour (when 
scheduled). Designed for junior/senior social sciences 
and urban studies majors. Introduction to urban anthro-
pology and history of anthropological study of 
American society. P/NP or letter grading.

147. Development Anthropology. (4) (Formerly 
numbered 161.) Lecture, three hours; discussion, one hour 
(when scheduled). Requisite: course 3. Exploration of 
processes through time and place that led to 

148. Past People and Their Lessons for Our Own 
Future. (5) (Formerly numbered M158Q) (Same as 
Geography M142 and Honors Collegium M152.) 
Lecture; two hours; discussion, two hours. Examination 
of modern and past peoples that met varying fates, as 
background to examination of how other modern 
peoples are coping or failing to cope with similar is-

149. Selected Topics in Social Anthropology. (4) 
(Formerly numbered 157.) Lecture, three hours; dis-
cussion, one hour (when scheduled). Study of se-
lected topics in social anthropology. Consult Schedule 
of Classes for topics and instructors. May be repeated for 
credit with topic change. P/NP or letter grading.

150. Language in Culture. (5) (Formerly numbered 
M140.) (Same as Linguistics M146-L.) Lecture, three 
hours; discussion, one hour; fieldwork, two hours. 
Requisite: course 4 or Linguistics 20. Study of lan-
guage as aspect of culture; relation of habitual thought 
and behavior to language; and language and classifi-
cation of experience. Holistic approach to study of 
language, with emphasis on relationship of linguistic 
anthropology to fields of biological, cultural, and social 
anthropology, as well as archaeology. Core course for 
linguistics field.) P/NP or letter grading.

151. Ethnography of Everyday Speech. (5) (For-
merly numbered 141.) Lecture, three hours; fieldwork. 
Requisite: course 4. Designed for juniors/seniors. Course 
has two interrelated objectives: (1) to intro-
duce students to ethnography of communication — 

critical analysis of interactive behavior and 
sociocultural knowledge that it reflects and (2) to train 
students to recognize, describe, and analyze relevant 
linguistic, proxemic, and kinesthetic as-

152P. Language Development and Socialization. (4) 
(Formerly numbered 152P) (Same as Psychology 
M143.) Lecture, three hours; discussion, one hour 
(when scheduled). Exploration of processes through 

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152Q. Language and Social Organization through Life Cycle. (Formerly numbered 149F.) Lecture, three hours. Requisite: course 4. Examination of forms of participation and talk-in-interaction across various phases of life cycle from birth to old age, using video-taped interactions of naturally occurring activities. How language and interaction within specific contexts are used to constitute identity and how interaction order resulting from face-to-face interaction provides building blocks for larger formations that arise from such activities. P/NP or letter grading.

152R. Language, Culture, and Education. (Formerly numbered 149D.) Lecture, three hours. Requisite: course 4. Examination of various ways that language, culture, and language in particular, influence not only educational processes and outcomes, but also very conceptions of what normal development processes and desirable educational outcomes are. P/NP or letter grading.

153. Language and Identity. (Formerly numbered 149A.) Lecture, three hours. Requisite: course 4. Language as social phenomenon. Introduction to several angles from which language use can be critically examined as integral to intersections between individuals and between social groups. P/NP or letter grading.

154P. Multilingualism: Communities and Histories in Contact. (Formerly numbered 149C.) Lecture, three hours. Requisite: course 4. Examination of communicative, political, and poetic aspects of use of two or more languages (multilingualism) by individuals and by groups. Broader themes in social theory, anthropological inquiry, sociolinguistics, and literary studies in lectures to contextualize class readings. P/NP or letter grading.

154Q. Gender and Language in Society. (Formerly numbered 149B.) Lecture, three hours; discussion, one hour (when scheduled). Requisite: course 4. Examination of role language plays in social construction of gender identities and ways in which gender impacts language use and ideologies. P/NP or letter grading.

154SL. Gender and Language across Communities. (Formerly numbered 149SL.) Lecture, three hours; discussion, one hour. Requisite: course 4. Examination of how language practices contribute to expression of gendered identities in different social groups and situations. Completion of 20 hours of service learning in community service program coordinated through Center for Community Learning required. Active participation in organized service that is conducted in and meets needs of communities. P/NP or letter grading.

155. Native American Languages and Their Speakers. (Formerly numbered C155.) Lecture, three hours. Requisite: course 4 or American Indian Studies M10. Introduction and comparative analysis of socio-cultural aspects of language ideologies and language use in Native American communities through Americanization. Examination of cultural diversity of discourse practices for both everyday forms of speaking as well as speech in particular cultural contexts. Role of language and communication in Native American education contexts is also examined. Considerable attention is paid to Native American verbal art because of its cultural importance. Examination also of language shift away and current efforts by indigenes to reclaim and revitalize heritage languages. Role of linguistic racism directed at Native American and the historical influence of nation-states is also examined. P/NP or letter grading.

M156. Language Endangerment and Linguistic Revitalization. (Formerly numbered M162.) Same as American Indian Studies M162.) Lecture, three hours; activity, one hour. Requisite: course 4. American Indian Studies M10. Examination of causes and consequences of loss of linguistic diversity and revelation of kinds of efforts that members of threatened heritage language communities have produced in their attempt to revitalize these languages. Projected loss of as many as half of world’s languages by end of 21st century can only be explained as outcome of such factors as nationalism, global economic forces, language ideological change, and language shift away from smaller indigenous and tribal lan- guages. Since loss of such languages means both re- duction of cultural as well as linguistic diversity, many affected communities have engaged in various lan- guage revitalization projects and gone about these projects with a considerable degree of success. Some have been attempted, including immersion, language and culture classes, master-apprentice, interactive multimedia, mass media ap- proaches, and historical knowledge of musicians and ethnomusi- cologists combined with those interested in jazz as cultural tradition. P/NP or letter grading.

M158. Culture of Jazz Aesthetics. (Formerly numbered M142B.) Same as Ethnomusicology M130 and Global Jazz Studies M130.) Lecture, three hours. Requisite recommended: course 3 or 4 or Ethnomusicology 20A or 20B or 20C. Aesthetics of jazz as point of view of musicians who shaped jazz as art form in 20th century. Listening to and interacting with professional jazz musicians who answer questions and give musical demonstrations. Analytical resources and approach and continuity with folk music. P/NP or letter grading.

159. Selected Topics in Linguistic Anthropology. (Formerly numbered 147.) Lecture, three hours; discussion, one hour (when scheduled). Study of se- lected topics in linguistic anthropology. Consult Schedule of Classes for topics and instructors. May be repeated for credit with topic change. P/NP or letter grading.

Regional Cultures

160A. Native North Americans. (Formerly numbered 172A.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Consideration of diversity of Native American soci- eties north of Mexico, including their origins, forma- tion, and development. Particular attention to subsis- tence economies and their relationship to social institu- tions and cultural practices, especially religion. P/NP or letter grading.

160B. Change and Continuity among Native North Americans. (Formerly numbered 172B.) Lecture, three hours. Requisite: course 160A. Consideration of tremendous change Native American societies and cultures have undergone since European contact. Em- phasis on patterns of adaptation and continuity as Indi- an Americans confronted colonization and its impli- cations. P/NP or letter grading.

161. Latin American Communities. (Formerly numbered 173Q.) Lecture, three hours. Overview of social and cultural anthropology of small communities in Latin America. Similarities and contrasts in social organization and interpersonal relations described in context of economic, political, and cultural environments. P/NP or letter grading.

162. Ethnography of South America. (Formerly numbered 174P.) Lecture, three hours. Introduction to ethnography of South American Indians, with special emphasis on Lowland South America. Survey of his- tory and development of man and society in this world area through examination of culture, mobility, cultu- ral construction of social person, changes in courtship, marriage, and family, and political economy of reforms in post-Mao era. P/NP or letter grading.

163P. Ideology and Social Change in Contempo- rary China. (Formerly numbered 175Q.) Lecture, three hours; discussion, one hour (when scheduled). Introduction to socio-cultural changes in China from 1949 to present. Topics include ideology and politics in post-revolutionary China, social stratification, mobility, cul- tural construction of social person, changes in courtship, marriage, and family, and political economy of reforms in post-Mao era. P/NP or letter grading.

163Q. Societies of Central Asia. (Formerly num- bered 175R.) Lecture, three hours. Overview of culture and society among diverse peoples of Inner Asia, in- cluding Mongolia, Tibet, and Soviet Central Asia. Topics include environment and economic adaptation, politics in traditional isolation and within framework of recent national integration, kinship, forms of marriage and status of women, religion and social order in Hindu/Buddhist culture contact zone, and current political economic modernization. P/NP or letter grading.

165. Sub-Saharan Africa. (Formerly numbered 171.) Lecture, three hours. Topics of ecology and polit- ical economy; contrasting conceptions of colonialism, na- tionalism, and current challenges for development; changes in social relations. Examination of Africa's significance to development of anthropology. Cultural background for understanding events in contempo- rary Africa provided. P/NP or letter grading.

M166Q. Culture Area of Maghrib (North Africa). (Formerly numbered M171P.) Same as Arabic M171 and History M108B.) Lecture, three hours. Designed for juniors/seniors. Introduction to North Africa, espe- cially Morocco, Algeria, Tunisia, and Libya, also known as Maghrib or Tamazgha. Topics include changing no- tions of personal, tribal, ethnic, linguistic, and religious identities; colonialism and decolonization; political control; changing representations of Islam, and religions in re- gion's public spaces. P/NP or letter grading.

167. Culture Area of Middle East. (Formerly num- bered 176B.) Lecture, three hours. Study of Middle East has suggested many insights into developmental history of humankind, evolution of human society, birth of monotheism, and origin of agriculture, trade, and cities. Presentation of anthropological material rel- evant to understanding Middle East as culture area, and Islam as basis of its shared tradition. P/NP or letter grading.

168P. Cultures of Pacific. (Formerly numbered 177.) Lecture, three hours; discussion, one hour (when scheduled). Study of Pacific areas of Australia, Melanesia, Polynesia, and Micronesia. Gen- eral geographical features, prehistory, and language distribution of whole region. Distinctive sociocultural features of each culture are presented in context of their adaptive significance. P/NP or letter grading.

M168Q. Ethnic Identity and Ethnic Relations in Ha- wai‘i. (Formerly numbered M177P.) Same as Asian American Studies M143C.) Lecture, three hours; dis- cussion, one hour. Continuing construction and ex- pression of ethnic identity in various cultural forms and social contexts in Hawai‘i. Overview of theoretical ap- proaches to and basic concepts in study of ethnic identity and ethnic relations in historical and contemporary aspects of ethnic identity and ethnic relations in Hawai‘i. Given in Hawai‘i. P/NP or letter grading.

169. Selected Topics in Regional Cultures. (Formerly numbered 178.) Lecture, three hours; discussion, one hour (when scheduled). Study of selected topics in regional cultures. Consult Schedule of Classes for topics and instructors. May be repeated for credit with topic change. P/NP or letter grading.
Specialized Studies

188SA. Individual Studies for USIE Facilitators. (1) Tutorial, to be arranged. Enforced corequisite: Honors College 101E. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor to discuss selected USIE seminar topic, conduct preparatory research, and begin preparation of syllabus. Individual contract with faculty mentor required. May not be repeated. Letter grading.

188SB. Individual Studies for USIE Facilitators. (1) Tutorial, to be arranged. Enforced corequisite: course 188SA. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor to finalize course syllabus. Individual contract with faculty mentor required. May not be repeated. Letter grading.

188SC. Individual Studies for USIE Facilitators. (2) Tutorial, to be arranged. Enforced corequisite: course 188SB. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor while facilitating USIE 88S course. Individual contract with faculty mentor required. May not be repeated. Letter grading.

189. Advanced Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to undergraduate lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be repeated for credit with consent of advisor. May be repeated for credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

189HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College-Honors Program. Designed as adjunct to upper-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.


191HA. Beginning Seminar. (4) Seminar, three hours. Limited to anthropology honors program students. Survey of major research strategies in anthropology to aid honors students in developing research proposals. Letter grading.

191HB. Field Methods. (4) Seminar, three hours. Limited to anthropology honors program students. Survey of major field methods in anthropology to prepare students to conduct their own field research. Letter grading.

191HC. Data Analysis. (4) Seminar, three hours. Limited to anthropology honors program students. Survey of major forms of data analysis in anthropology to aid honors students in analysis of their own research data. Letter grading.

191HD. Writing for Anthropology. (4) Seminar, three hours. Limited to anthropology honors program students. Emphasis on writing skills, with focus on how to write honors theses. Letter grading.

191HE. Writing for Publication and Conference Presentations. (4) Seminar, three hours. Limited to anthropology honors program students. Preparation of honors theses for publication and for conference presentations and posters. Letter grading.

193. Journal Club Seminars: Anthropology. (1) Seminar, one hour. Limited to undergraduate students. Discussion of recent journal articles assigned by discipline faculty members linked with speaker series. May be repeated for credit with topic change. P/NP grading.

194. Research Group Seminars: Anthropology. (1) Seminar, one hour. Limited to undergraduate students who are part of research group or internship. Discussion of research methods and current literature in discipline or of research of faculty members or students.

May meet concurrently with graduate research seminar. May be repeated for credit with topic change. P/NP grading.

195C. Community and Corporate Internships in Anthropology. (4) Tutorial, to be arranged: fieldwork, eight to 10 hours. Limited to previous corequisites: courses 101E. Internship in corporate, governmental, or nonprofit setting coordinated through Center for Community Learning. Students complete weekly written assignments, attend bimonthly with graduate student coordinator, and write final research paper. Faculty sponsor and graduate student coordinator construct series of reading assignments that examine issues related to internship site. May be repeated for credit. Individual contract required. P/NP or letter grading.

197. Individual Studies in Anthropology. (2 to 8) Tutorial, to be arranged. Limited to juniors/seniors. Individual intensive study, with scheduled meetings to be arranged. Topics of honors theses for publication and for conference presentation based on current research of faculty members or students. Faculty mentor while facilitating USIE 88S course. Limited to anthropology honors program students. Survey of world archaeology. Emphasis on applied sociocultural archaeology. Letter grading.

200. Anthropology Graduate Proseminar. (4) Seminar, three hours. Exposes incoming graduate students to contemporary view of anthropology by using work of UCLA faculty members to identify cross-cutting themes that bridge four fields of discipline and represent state of art of field. Historical overview of field and tracing of formation of discipline. Faculty guest speakers engage in discussion on aspects of their work that intersect with one or more of topical threads of course, followed by responses by instructor and one or more student discussants. Discussion of prepared written work and instructor responses, and weekly readings from visiting faculty member's work and positioning speaker’s work in broader history of field. S/U or letter grading.

201A-M201B. Graduate Core Seminars: Archaeology. (4) Same as Archaeology M201A-M201B. Seminar, three hours. Course M201A is required of anthropologists in archaeology field. Seminar discussion based on current anthropological research, including major works related to development of archaeological social sciences (201A) and humanities (201B). Core seminars provide students with foundation in breadth of professional anthropological archaeology. Archaeological historiography, survey of world archaeology, and archaeological techniques. Emphasis on appreciation of multiplicity of background of modern archaeological method, strategy, and techniques. May be repeated for credit with consent of advisor. S/U or letter grading.

201C. Archaeological Research Design. (4) Same as Ancient Near East M201 and Archaeology M201C. Seminar, three hours. Requires: courses M201A, M201B. How to design archaeological projects in preparation for MA thesis or PhD phase. Students do exploratory research to select subject, then write research design that could form basis for extensive paper, grant application, or oral examination. Students work closely with faculty members and report weekly on progress. Preparation of at least two original datasets. Data analysis procedures. Emphasis on archaeology research design that incorporates theoretical and practical aspects of research and formulates addressing research questions. Letter grading.

202A. Core Seminar: Biological Anthropology Colloquium. (4) Formerly numbered 202.) Seminar, three hours. Required of anthropology students in biological anthropology subfield. Discussion focused on introducing students to field, and providing opportunity to participate in current research, to interact, and engage with, work being done by others in department. Letter grading.

202B. Core Seminar: Biological Anthropology. (4) Seminar, three hours. Required of anthropology students in biological anthropology subfield. First in two-course series. Examination of theoretical and empirical writings that shaped biological subfield, and evolution of biological anthropology. Topics include evolutionary theory, paleoanthropology, population genetics, and evolutionary game theory. Letter grading.

202C. Core Seminar: Biological Anthropology. (4) Seminar, three hours. Required of anthropology students in biological anthropology subfield. Second in two-course series. Examination of theoretical and empirical writings that shaped biological subfield, and evolutionary studies of behavior more generally. Topics include evolutionary theory, primatology, evolutionary psychology, cultural evolution, and human behavioral ecology. Letter grading.


203C. Scientific and Interpretive Frameworks in Contemporary Anthropology. (4) Seminar, three hours. Recommended requisite: course 203A. Examination of selected contemporary frameworks and issues in field of sociocultural anthropology. Letter grading.

204A. Core Seminar: Linguistic Anthropology. (4) Formerly numbered 204.) Seminar, three hours. Credits can be expanded to four units for students with relevant background in critical theoretical and methodological concepts in linguistic anthropology. Study of classic and contemporary texts, focusing on relationship between language and culture. Focus on linguistic anthropology theory, as well as additional discussion of methodologies within and related to discipline including ethnographic fieldwork, conversational analysis, syntactic analysis, sociophonetic analysis, sociolinguistic interviewing, and philosophical approaches. Letter grading.

204B. Core Seminar: Linguistic Anthropology. (4) Seminar, three hours. Survey of recent full-length ethnographic works in linguistic anthropology to engage with methods, practices, topics, and central theoretical frameworks being used across subfield. Consideration of texts’ relationship to works in other subfields, related disciplines, and prior approaches to understanding interplay between language, context, and culture. Consideration also of ethnographic writing as genre, and critical engagement with ways that authors present data, marshal theory, and present arguments within book format. This provides means of characterizing very different generic expectations for dissertation writing within anthropology, allowing for additional professionalization component. Letter grading.

Archaeology

CM210Q. Introduction to Archaeological Sciences. (4) (Same as Ancient Near East CM229.) Lecture, three hours. Basic understanding of newly introduced methods and techniques throughout field of archaeology to implement them and to appreciate and evaluate results of their use by others who have em-bedded them in their scholarly publications or theoretical models. Systematic instruction in digital data management and mining, scientific analysis of materials (human and biochemical techniques), and visual presentation of data and research results (ranging from simple graphs to virtual reality). Concurrently scheduled with course CM110Q. S/U or letter grading.

211. Classification in Archaeology: Method and Theory. (4) Seminar, three hours. Limited to graduate anthropology and archaeology students. Discussion of issues and methods concerning anthropological classification of artifacts should be conducted, with focus on ceramic classification and discovery of cultural types. Methods for implementing discovery approaches to classification illustrated with lithic and pottery examples. Review of relationship between classification, style, and function, S/U or letter grading.

212P. Explanation of Societal Change. (Formerly numbered 212B.) Lecture, three hours. Examination of processes of societal evolution, emphasizing usefulness of variety of explanatory models from general systems theory, ecology, anthropology, and other sources. Specific research questions vary with each course offering. May be repeated for credit. S/U or letter grading.

212Q. Archaeology of Urbanism. (Formerly numbered 212A.) Seminar, three hours. Evaluation of cities as most complex form of human population center, using both archaeological and modern examples. Observations about material culture and space enable assessment of social dynamics as cities are constructed and lived in by variety of different ethnic, economic, ritual, and political groups. S/U or letter grading.

214. Selected Topics in Prehistoric Civilizations of New World. Seminar, three hours. Mesoamerican and Andean civilizations normally constitute major focus of seminar. May be repeated for credit. S/U or letter grading.

M216. Topics in Asian Archaeology. (4) (Same as Art History M258B.) Seminar, three hours. Designed for graduate students. Topics may include identification of ethnic groups in archaeology, archaeology of religion, archaeological reflections of commerce and trade and of social development, archeology of language dispersal, cultural contact and nature of cultural influence. S/U or letter grading.

CM217. Selected Laboratory Topics in Archaeology. (4) (Formerly numbered M212S.) (Same as Archaeology M212S.) Lecture, one hour: laboratory, two hours. Designed for graduate students in archaeology or in other departments. Specialized analysis of particular classes of cultural remains. Topic may be one of following: zooarchaeology, paleoethnobotany, ceramatics, lithic analysis, rock art, laboratory experience with collections and data. May be repeated for credit with topic change. Concurrently scheduled with course C117. S/U or letter grading.

219. Selected Topics in Anthropological/Archaeological Theory. (4) (Formerly numbered 285P.) Seminar, three hours. Designed for graduate students. Variable topics course on important theoretical sub-jects in anthropological archaeology. Topics include early village societies, specialization and cultural complexity, ethnography for archaeologists, power and hierarchy, gender and social stratification, material culture, systems of classification, and theory. S/U or letter grading.


222. Graduate Core Seminar: Biological Anthropology in Review. (4) Seminar, three hours. Graduate core course in biological anthropology. Topics include evolutionary theory, behavior of nonhuman primates, hominin evolutionary history, and contemporary human variation. S/U or letter grading.

223. Experimental Biological Anthropology. (2) Seminar, two hours. Research seminar for graduate students conducting experimental research in biological anthropology to assist students in developing research ideas and methods and analyzing results. S/U grading.

229. Current Problems in Biological Anthropology. (4) Formerly numbered 229P.) Seminar, three hours. Detailed examination of research in biological anthropology (specific topics to be announced). Emphasis on nature of hypotheses and their testing in ongoing student and faculty research. May be repeated for credit. S/U or letter grading.

Sociocultural Anthropology


232P. Anthropology and Media Theory. (4) Formerly numbered 233R.) Seminar, three hours. Limited to graduate students. Examination of theoretical assump-tions and debates that animate visual anthropo-logy very broadly defined, including issues of inter-preetation, production, and reception of visual media, which includes ethnographic, documentary, and fea-true films, as well as television programming. S/U or letter grading.

232Q. Ethnographies of Information Technology. (4) Formerly numbered 233T.) Seminar, three hours. Emerging work on new information economy, with emphasis on ethnography. Reading of anthropological work and materials from range of disciplines, including sociology, geography, urban studies, and manage-ment studies. S/U or letter grading.

235P. Anthropology of Information Technology. (4) Formerly numbered 233T.) Seminar, three hours. Limited to 15 students. Examination of interrela-tionships between society, culture, ecology, health, and illness. Bases for written critical analysis and class dis-cussion provided through key theoretical works. S/U or letter grading.

235Q. Latin America: Traditional Medicine, Shamanism, and Folk Illness. (4) Formerly numbered M264.) (Same as Community Health Sciences M264 and Latin American Studies M264.) Lecture, three hours. Recommended preparation: Community Health Sciences 132, bilingual English/Spanish skills. Examination of role of traditional medicine and shamanism in Latin America and exploration of how indigenous and mestizo groups diagnose and treat folk illness and Western-defined diseases with variety of health-seeking methods. Examination of art, music, and ritual and case examples of healing practices via lecture, film, and audio/tape. Letter grading.

233R. Health and Culture in Americas. (4) Formerly numbered M268.) (Same as Community Health Sciences M268 and Latin American Studies M268.) Lecture, three hours. Recommended requisite: Com-munity Health Sciences 132. Health issues throughout Americas, especially indigenous/Mestizo Latin Amer-ican populations. Individual discussions covering politics, economics, history, geography, human rights, mat-ernal/child health, culture, Letter grading.

233T. Narrative and Times of Trouble. (4) Formerly numbered M266.) Seminar, three hours. Recom-mended requisites: courses 203A, 203B, 203C, 204, or 252A. Exploration of how linguistic and psycholog-ical/medical anthropology inform each other in relation to narrative and times of trouble. Topics in-clude narrative sense-making in response to illness and misfortune; phenomenology of time, narrative, healing, and experience; remembering through narra-tive; narrative subjectivity; and narrative and selves in space. S/U or letter grading.

234. Mind, Medicine, and Culture. (2) Formerly numbered C234.) Seminar, two hours, interdisciplinary discussion group hosted by topics and discus-sions with scholars from UCLA and beyond. Group provides forum for exploring recent research and clas-sical and contemporary theoretical perspectives that inform psychopathology and medical anthro-pology. S/U grading.


236. Seminar: Psychocultural Studies and Medical Anthropology. (4) Formerly numbered 236P.) Seminar, three hours. Devoted to present state of research in psychocultural studies. Survey of work in child devel-opment and socialization, personality, psychobiology, transcultural psychiatry, deviance, learning, perception, cognition, and psychocultural perspectives on change. S/U or letter grading.

237. Native American Revitalization Movements. (4) (Same as History M260C.) Lecture, two hours; discussion, one hour. Examination of revitalization move-ments among native peoples of North America (north of Mexico). Specific revitalization includes Handsome Lake, 1870 and 1890 Ghost Dances, and Peyote Riel. Letter grading.

239. Selected Topics in Field Ethnography. (4 to 8) (Formerly numbered 239P.) Seminar, three hours. Discussion and practiceicum in various techniques for col-lecting and analyzing ethnographic field data. S/U or letter grading.

241. Culture, Power, Social Change. (2) Seminar, two hours. Cutting-edge research in sociocultural an-thropology. Talks given by scholars from different uni-versities around world and faculty and students from UCLA with discussion regularly attended by students and faculty from wide range of related departments in addition to anthropology. Additional sessions about recently published or unpublished manuscripts. Pro-fessionalization sessions for doctoral students. Topics of discussion vary from year to year. S/U grading.


244. Multispecies Anthropology. (4) Lecture, three hours. Survey of human-animal relationships across history, from ancient domestication to present-day debates over animal rights, and very dif-ferent ways societies distant in time and space from our own have constrained inner lives of other species and vision. Seminar to be held concurrently scheduled with course C114M. S/U or letter grading.

244P. Contemporary Issues of American Indians. (4) Formerly numbered M269P.) (Same as Gender Studies M269.) Seminar, three hours. Introduction to most important issues facing American Indians as individuals, communities, tribes, and organizations in contemporary world, based on historical background in American Indian Studies M200A and cultural and expres-sive experience of American Indians presented in American Indian Studies M200B. Letter grading.
C244S. Repatriation of Native American Human Remains and Cultural Objects. (4) Formerly numbered C269R.) Lecture, two hours; discussion, one hour. Native Americans have recently been successful in obtaining passage of federal and state laws repatriating human remains and cultural objects. Consideration of this phenomenon. May be concurrently scheduled with course C144S. S/U or letter grading.

M245. Critical Theory of African Diaspora. (4) (Same as African American Studies M220.) Seminar, four hours. Introduction to variety of ideas that underlie articulation of construct of African diaspora. Structured through understanding of African diaspora as historic concept, with focus on African diaspora as distinct intellectual project. Exploration of ways scholars have conceptualized and theorized diasporic condition of black peoples. Consideration of who belongs to African diaspora community, and how this community is imagined. S/U or letter grading.

246. Contemporary Problems in Africa. (4) (Formerly numbered 271.) Seminar, three hours. Problematic issues in Africa in light of classical anthropological literature and recent work by anthropologists and other fieldworkers in Africa, with cases from eastern and southern Africa. S/U or letter grading.

M247P. Japan in Age of Empire. (4) (Formerly numbered M276.) (Same as Asian M292 and History M286.) Seminar, three hours. Study of changes undergone by Japan during late 19th and 20th centuries. Emphasis on students. Since late 19th century, Japan expanded its empire into East and Southeast Asia. Coverage of that period and array of anthropological studies conducted in Japan’s colonies and occupied areas in this newly explored area of study of colonialism. S/U or letter grading.


247R. Modern Taiwanese Indigenous Societies. (4) Seminar, three hours. Historical examination of impact of modernization on indigenous populations in Taiwan beginning with Han colonization. Examination of integration of indigenous groups into state politics and market economy, and state-sponsored discourses that forced erasure of indigenous cultures and knowledge. Study of resistance by groups to assimilationist programs of new strategies meant to maintain indigenous identities with regard to Han hegemony. Focus on intensification of indigenous peoples’ tie to land. Offers framework to understand Taiwanese indigenous peoples’ experiences under modernization. S/U or letter grading.

M248. Anthropology and History of Mediterranean. (4) (Same as History M248 and Near Eastern Languages M248.) Seminar, three hours. Introduction to historical and anthropological writings about Mediterranean. Draws on variety of classic and contemporary theories, histories, and ethnographies about Mediterranean Sea. Topics include geographical and imaginary boundaries, Mediterranean honor/shame concepts, colonial and post-colonial Mediterranean, Levantinism, thalassology, Mediterraneanism, French Mediterranean, Jewish Mediterranean, colonial and post-colonial Mediterranean and mobility. Focus on critical history of anthropological study of Mediterranean and scholarly literature that emphasizes southern shores of Mediterranean. Letter grading.

249. Selected Topics in Social Anthropology. (4) (Formerly numbered 250.) Seminar, three hours. Intensive examination of current theoretical views and literature. S/U or letter grading.

252A. Ethnography of Communication. (4) Formerly numbered C269R.) Lecture, two hours; discussion, one hour. Native Americans have recently been successful in obtaining passage of federal and state laws repatriating human remains and cultural objects. Consideration of this phenomenon. May be concurrently scheduled with course C144S. S/U or letter grading.

252B. Ethnographic Methods in Language, Interaction, and Culture. (4) Formerly numbered 249A.) Seminar, one hour. Formerly numbered M230A or Sociology 244A. Ethnographic approaches to recording and analyzing communicative events and practices in their socio-cultural context, involving student-initiated fieldwork in community setting. Emphasis on hands-on metaphor, theories of reference and denotation, honorific speech, evidentiality, reported speech, etc. May be repeated for credit with topic change.C/S/U or letter grading.

258. Language Socialization. (4) Formerly numbered 248.) Seminar, four hours. Exploration of process of socialization through language and socialization to use language across lifespan, across communities of practice within single society, and across different ethnic and socioeconomic groups. Ways in which verbal interaction between novices and experts is structured linguistically and culturally. S/U or letter grading.

259. Selected Topics in Linguistic Anthropology. (4) Formerly numbered M241.) Seminar, three hours. Problems in relations of language, culture, and society. May be repeated for credit. S/U or letter grading.

Research Methods

262. Research Design in Cultural Anthropology. (4) Lecture, three hours. Primarily designed for graduate students preparing for fieldwork. Unique position of anthropology among social sciences offers problems for scientific research design. Review of typical research problems and appropriate methods. Students prepare their own research designs and present them for class discussion. S/U or letter grading.

263. Proposal Writing Seminar. (4) Formerly numbered 200.) Seminar, three hours. Introduction to art of proposal writing. Focus on proposal for anthropological fieldwork, with skillful use of discursive and proposal genres. Structured as writing workshop, with weekly writing assignments and group critique. S/U or letter grading.


284B. Quantitative Research Methodology. (4) Formerly numbered 284P) Seminar, three hours. Limited to graduate students. Recommended preparation: research design course. Hands-on approach to qualitative methods used in anthropological research and techniques for analysis of qualitative data. Particular methods depend on and are appropriate to research questions and designs students bring to class. S/U or letter grading.

288. Relational Models Theory and Research Design. (4) Seminar, three hours. Relational models theory (RMT) postulates that people in all cultures use combinations of just four relational models (RMs) to organize most aspects of most social coordination: communal sharing, authority ranking, equality ranking, and market pricing. Explanation of how people use these RMs to motivate, generate, construct, coordinate, judge, and sanction social interaction. RMT aims to account for everything universal and variable across cultures. Explains in detail the cultural factors that specify how and with whom each relational model operates. Readings may include RMT research in social anthropology, archaeology, sociocultural theory, semiotics, linguistics, developmental, cognitive, social, political, moral, clinical, and cultural psychology, neuroscience, evolution, sociology, family studies, philosophy, management, marketing, and consumer psychology, economics, justice, public health, policy, and international development. S/U or letter grading.

Specialized Studies

294. Human Complex Systems Forum. (1) Seminar, 90 minutes every other week. Interdisciplinary seminar series to provide students with exposure to current research in understanding nature of human societies from complexity and multi-perspective. May be repeated for credit. S/U grading.


299. Selected Topics in Anthropology. (4) Formerly numbered 297.) Seminar, three hours. Designed for graduate students. Study of selected topics of anthro-
Applied Linguistics BA

The Applied Linguistics BA was transferred to the Linguistics Department effective winter quarter 2015.

Language Teaching Minor

The Language Teaching minor was discontinued effective winter quarter 2015.

Graduate Study

The Department of Applied Linguistics offers Master of Arts (MA), Candidate in Philosophy (CPhil), and Doctor of Philosophy (PhD) degrees in Applied Linguistics. However, the UCLA Academic Senate approved the discontinuance of the graduate degree and certificate programs effective winter quarter 2015. Students currently enrolled in any of the programs may complete them under current requirements.

Applied Linguistics

Lower-Division Course

30W. Language and Social Interaction. (5) Lecture, three hours; discussion, two hours. Enforced requisites: English Composition 3 or 3H or English as a Second Language 36. Not open for credit to students with credit for course 30. Exploration of range of topics related to study of language and social interaction in both mundane and professional settings, particularly how language affects social lives and how social organization affects use of language. Topics include different approaches to study of language in social interaction (theories and research methodologies), issues regarding language and social identity (such as socioeconomic status, race, gender, and situational identity), and issues concerning language and culture (such as cross-cultural misunderstanding and language socialization). Satisfies Writing II requirement. Letter grading.

Graduate Courses

375. Teaching Apprentice Practicum. (1 to 4) Seminar, to be arranged. Preparation: apprentice personnel employment as teaching assistant, associate, or fellow. Teaching apprenticeship under active guidance and supervision of regular faculty member responsible for curriculum and instruction at UCLA. May be repeated for credit. S/U grading.

596. Directed Individual Study. (2 to 12) Tutorial, to be arranged. Limited to MA and PhD students. Independent study in one area of applied linguistics. May not be applied toward MA course requirements. Up to 8 units may be applied toward PhD course requirements. May be repeated for credit. S/U or letter grading.

587. Preparation for PhD Candidacy Examination. (4 to 8) Tutorial, to be arranged. Preparation: completion of at least six courses of 32-unit requirement for PhD. May not be applied toward 32-unit requirement. May be repeated for credit. S/U or letter grading.

599. Research for and Preparation of PhD Dissertation. (4 to 16) Tutorial, to be arranged. Preparation: advancement to PhD candidacy. Required of all PhD candidates each term they are registered and enrolled in dissertation preparation. May be repeated for credit but may not be applied toward PhD course requirements. S/U grading.

ARCHAEOLOGY

Interdepartmental Program

College of Letters and Science

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Archaeology
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Gregson T. Schachner, PhD, Chair

Faculty Committee

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Hans Barnard, MD, PhD (Near Eastern Languages and Cultures)
Sarah E. Beckman, PhD (Classics)
P. Jeffrey Brantingham, PhD (Anthropology)
Aaron A. Burke, PhD (Near Eastern Languages and Cultures)
Kathryn (Kara) M. Cooney, PhD (Near Eastern Languages and Cultures)
Jason P. De Léon, PhD (Anthropology, Chicana and Chicano Studies)
Sharon E. J. Gerstel, PhD (Art History)
Ioanna Kakoulli, DPhil (Materials Science and Engineering)
Richard G. Lesure, PhD (Anthropology)
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Lothar von Falkenhauen, PhD (Art History)
Thom Gustave Wake, PhD (Anthropology)
Willeke Z. Wendrich, PhD (Near Eastern Languages and Cultures)
Glenn Wharton, PhD (Art History)

Scope and Objectives

The Archaeology Interdepartmental Program offers MA and PhD degrees in Archaeology. It brings together interests and specialties represented by those departments offering courses in archaeology, as well as others offering courses relevant to archaeology. The primary purpose of the program is to train scholars in archaeology for university-level teaching and research and other professional aims. Its resources are intended for those archaeology students whose academic goals cannot be met within any single department and who, consequently, require an individually designed plan of study combining academic preparation in two or more departments. Applications are especially encouraged from students whose interests may form bridges with disciplines and departments not offering archaeology (e.g., botany, chemistry, geology, mathematics, statistics, and zoology). There are opportunities for participation in a variety of field, laboratory, and computer studies.
Graduate Study

Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Division website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Graduate Degrees

The Graduate Program offers Master of Arts (MA), Candidate in Philosophy (CPhil), and Doctor of Philosophy (PhD) degrees in Archaeology but does not encourage applicants who seek only an MA degree.

Archaeology

Lower-Division Courses

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

30. Science in Archaeology. (4) Lecture, three hours; discussion, one hour. Archaeology is rapidly developing due to ongoing introduction of new hardware, software, and information dissemination technology. It is multidisciplinary field of study, combining its own research methods and technologies with elements from geology, history, ethnography, geography, material science, statistics, biology, biochemistry, medicine, and others. Course does not give new scholarly insights, but also to provide integrated instruction in science, technology, engineering, and mathematics (STEM) skills. Use of archaeological data as paradigm in STEM education. Instant practical application of mathematics during surveying, geology during ceramic analysis or geophysical research, biochemistry during archaeological residue analysis, or biology during zooarchaeology or paleoethnobotanical research offers point of departure for instructors as well as motivation to students. P/NP or letter grading.

98HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designated as adjunct to lower-division lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be arranged toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

98HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designated as adjunct to lower-division lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be arranged toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

99. Student Research Program. (1 to 2) Tutorial (supervised research or other scholarly work), three hours per week per unit. Entry-level research for lower-division students under guidance of faculty mentor. Students must be in good academic standing and enrolled in necessary courses (excluding this course). Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP grading.

Upper-Division Courses


M112. Archaeology and Art of Christian and Islamic Egypt. (4) (Same as Art History M119D, Islamic Studies M1112, and Middle Eastern Studies M1112) Lecture, three hours; discussion, one hour. Course examines gradual transformation of art gradually after Muslim conquest in mid-7th century CE. According to material evidence such as ceramics, textiles, architectural forms, and building techniques, it is functionally monogenic pre-Islamic Christian Egypt from early Islamic Egypt. Although population may have become largely Muslim by 10th century CE, Egypt remained Coptic in many senses even to 14th century and retains sizeable Christian minority to present. Survey of archaeological remains and standing architecture of Egypt from 6th to 19th century, charting changes and continuities in material culture and shifts in human geography and land use. P/NP or letter grading.

C120. Special Topics in Archaeology. (2 or 4) Lecture, three hours. Designed for juniors/seniors. Special topics on theoretical subjects in archaeology such as new strategies, regional synthesis, or current work by core program faculty or special visiting scholars. May be repeated for credit with topic change. Concurrently scheduled with course C220. Final project or paper required if taken for 4 units (P/NP or letter grading); 2-unit course has P/NP grading.

C159. Fieldwork in Archaeology. (2 to 12) Fieldwork, to be arranged. Participation in archaeological field excavations or research under supervision of staff archaeologists at UCLA. Minimum of one month of field time away from campus required. May be repeated for credit with consent of adviser. Concurrently scheduled with course C259. P/NP or letter grading.

C180. Ancient and Historic Metals: Corrosion, Technology, and Microstructure. (8) Seminar, four hours; laboratory, four hours. Overview of technology of ancient metals, aspects of extraction and alloying, corrosion that ancient metals undergo, and how this impacts their preservation. Exploration of knowledge and research work of last two decades that has substantially advanced understanding of processes of extraction, alloying, surface patination, metallic coatings, corrosion, and microstructure. Laboratory work in preparation and examination of metallic samples under microscope, as well as lectures on technology of metallic works of art. Discussion of phase and stability diagrams of common alloying systems and environments. Metallography of Bronze Age Europe, Renaissance Europe, China from Warring States to Tang dynasty, Japanese sword-making, Indian high-tin bronze alloys, bronzes, Peruvian and South American Panamanian copper and gold-copper alloys. Concurrently scheduled with course C280. Letter grading.

189. Advanced Honors Seminars. (1 Seminar, three hours. Limited to 20 students. Designed as adjunct to lower-division lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be arranged toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

189HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designated as adjunct to lower-division lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be arranged toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

99. Student Research Program. (1 to 2) Tutorial (supervised research or other scholarly work), three hours per week per unit. Entry-level research for lower-division students under guidance of faculty mentor. Students must be in good academic standing and enrolled in necessary courses (excluding this course). Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP grading.

Graduate Courses

M201A-M201B. Graduate Core Seminars: Archaeology. (4–4) (Same as Anthropology M201A-M201B) Seminar; three hours. Required of all students. Seminar in discussion to be given the first 25 major works related to development of archaeology in social sciences (M201A) and humanities (M201B). Compulsory core seminars provide students with foundation in breadth of knowledge required of professional archaeologists. Archæological historiography, survey of world archaeology, and archaeo logical techniques. Emphasis on appreciation of multidisciplinary background of modern archaeology and interpretative strategies for credit with consent of adviser. S/U or letter grading.

M201C. Archaeological Research Design. (4) (Same as Ancient Near East M201 and Anthropology M201C) Seminar, three hours. Requisites: courses M201A and M201B. How to design research projects in preparation for MA thesis or PhD phase. Students do exploratory research to select subject, then research design that could form basis for extensive paper, grant application, or oral examination. Students work closely with faculty members and report weekly on their progress. Preparation of at least two course-related draft papers. Theoretical framework and one on practical aspects of project. Final written research design that incorporates theoretical and practical aspects of research and formulates bridging arguments required. S/U or letter grading.

M205A. Selected Laboratory Topics in Archaeology. (4) (Same as Anthropology CM217.) Lecture, one hour; laboratory, two hours. Designed for graduate students enrolled in archaeology or related field. Specialized analysis of particular classes of cultural remains. Topic may be one of: zooarchaeology, paleoethnobotany, ceramics, lithic analysis, zooarchaeology, and paleoethnobotany. May be repeated for credit with topic change. S/U or letter grading.

M205B. Intensive Laboratory Training in Archaeology. (8) Formerly numbered M205B. Lecture, three hours; laboratory, two hours minimum. Advanced laboratory training for graduate students with extended laboratory hours. Special laboratory-based topics, including but not limited to lithic analysis, ceramic analysis, zooarchaeology, and paleoethnobotany. May be repeated for credit with topic change. S/U or letter grading.


M220. Special Topics in Archaeology. (2 or 4) Lecture, three hours. Special topics on theoretical subjects in archaeology such as new strategies, regional synthesis, or current work by core program faculty or special visiting scholars. May be repeated for credit with topic change. Concurrently scheduled with course C220. Final project or paper required if taken for 4 units (S/U or letter grading); 2-unit course has S/U grading.

M229. Fieldwork in Archaeology. (2 to 12) Fieldwork, to be arranged. Participation in archaeological field excavations or research under supervision of staff archaeologists at UCLA. Minimum of one month of field time away from campus required. May be repeated for credit with consent of adviser. Concurrently scheduled with course C229. S/U or letter grading.

M265. Depositional History and Stratigraphic Analysis. (4) (Same as Ancient Near East M265.) Lecture, two hours. Theoretical understanding of depositional processes ("laws") which lead to site formation and of stratigraphic procedures to be used in recovery of bedded cultural materials. Study of issues covered in literature with specific test cases from actual excavations and site reports. Coverage of theoretical implications of such disciplines as surveying and pedology with help of specialists. S/U or letter grading.

M280. Ancient and Historic Metals: Corrosion, Technology, and Microstructure. (4) Seminar, four hours; laboratory, four hours. Overview of technology of ancient metals, aspects of extraction and alloying, corrosion that ancient metals undergo, and how this impacts their preservation. Exploration of knowledge and research work of last two decades that has substantially advanced understanding of processes of extraction, alloying, surface patination, metallic coatings, corrosion, and microstructure. Laboratory work in preparation and examination of metallic samples under microscope, as well as lectures on technology of metallic works of art. Discussion of phase and stability diagrams of common alloying systems and environments. Metallography of Bronze Age Europe, Renaissance Europe, China from Warring States to Tang dynasty, Japanese sword-making, Indian high-tin bronze alloys, bronzes, Peruvian and South American Panamanian copper and gold-copper alloys. Concurrently scheduled with course C280. Letter grading.
ARCHITECTURE AND URBAN DESIGN

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Dana Cuff, PhD
Neil M. Denari, MArch
Greg S. Lynn, MArch
Ben J. Refuerzo, MArch
Brett B. Steele, AADipl

Professors Emeriti
Marvin Adelson, PhD
Samuel Aroni, PhD
Diane G. Favro, PhD
Baruch Givoni, PhD
Thomas S. Hines, PhD
Craig E. Hodgetts
F. Eugene Kupper, MArch
Jurg Lang, DiplArch
Robin S. Liggett, PhD
Mark Mack
Thom Mayne, MA
Murray A. Milne, MArch
Barton Myers, MArch
George Rand, PhD
Dagmar E. Richter, DiplArch
Richard Schoen, MArch
Thomas R. Vreeland, Jr., MArch

Associate Professors
Georgina Huljich, MArch
Michael Osman, PhD
Jason K. Payne, MArch
Heather L. Roberge, MArch

Adjunct Professors
Kevin M. Daly, MArch
Alan Locke, MSc
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Adjunct Associate Professor
Jeffrey N. Inaba, MArch, MA

Adjunct Assistant Professors
Julia Körner, MSc
Natascha S. Sandmeier, MA
Mohamed Sharif, MS

Scope and Objectives
The Department of Architecture and Urban Design at UCLA offers a Bachelor of Arts degree in Architectural Studies and four graduate degree programs tailored to the needs of different groups of students: MArch, MA, and PhD in Architecture; and M5 in Architecture and Urban Design. The BA in Architectural Studies is a two-year program with focus on the built environment. The curriculum visualizes architecture as a cultural, creative, and technical practice and a discipline with direct social impact. Within the context of a liberal arts education, a finely balanced set of architecture and urban design courses, ranging from the history and theory of design to contemporary building technologies, provides students with a diverse foundation of knowledge in the field of architecture and prepares them for graduate school and/or careers in a wide range of fields.

MArch is a three-year first professional degree program accredited by the National Architectural Accrediting Board (NAAB). It does not assume any prior background in architecture. Students who do have some prior architecture background (e.g., a four-year undergraduate degree) may also enter the program and may petition to waive certain required courses and substitute more advanced electives in their place. MArch graduates normally pursue professional careers in architectural practice.

The Architecture and Urban Design M5 is an advanced self-supporting professional degree program for students who already hold a first professional degree in architecture. The program offers opportunities for intensive concentration in a variety of areas of professional specialization.

The MA and PhD degree programs offer opportunities to pursue research and scholarship in the field of architecture. Graduates typically pursue academic or applied research and consulting careers.

In the U.S. most state registration boards require a degree from an accredited professional degree program as a requisite for licensure. NAAB, the sole agency authorized to accredit U.S. professional degree programs in architecture, recognizes two types of degrees: Bachelor of Architecture and Master of Architecture.

Undergraduate Study

Architectural Studies BA

Learning Outcomes
The Architecture Studies major has the following learning outcomes:

- Demonstrated competence in representational techniques including physical and digital modeling, drawing, and analytical diagramming
- Use of representational techniques to document design concepts, organization, spatial order, and scale
- Ability to compile portfolio of original architectural and three-dimensional design proposals
- Familiarity with historical and contemporary precedents in the field
- Demonstrated written awareness of the historical, technological, and cultural significance of precedent works
- Familiarity with, and presentation and discussion of, concepts related to form, organization, and space making
- Delivery of oral and graphic presentations of design concepts and proposals
- Reception of and response to design criticism, and reflection of this response in revised design documentation, as an integral part of the design process

Admission
Students are admitted for fall quarter only. Admission is highly competitive, and only a limited number of students are admitted each year. UCLA students may apply for admission in fall quarter of their second year in residence, must have at least a 3.0 cumulative grade-point average, and are required to complete the preparation for the major courses, with grades of B or better, before applying for admission. Transfer students must have at least a 3.0 cumulative GPA and are expected to complete the preparation for the major courses during their first year in residence. All applicants must submit a statement of interest and a three- to six-page PDF of creative work. Applications are available in the department office to regularly enrolled UCLA students during the previous fall quarter. For more information, consult with the undergraduate adviser.

Preparation for the Major
Graduate Degrees

The Department of Architecture and Urban Design offers Master of Architecture (MArch), Master of Arts (MA) and Doctor of Philosophy (PhD) degrees in Architecture, and Master of Science (MS) degree in Architecture and Urban Design. A concurrent degree program (Architecture MArch/Urban Planning MUPR) and a Graduate Certificate in Urban Humanities are also offered.

Architecture and Urban Design

Graduate Program Offerings

Lower-Division Courses

10A. History of Architecture and Urban Design: Prehistory to Maniera: (5) Lecture, three hours; discussion, one hour; outside study, 11 hours. Exploration of developments in global architecture and urban design from prehistory to 1600 and critical reflection on terms such as building, architecture, city, history, and culture. Focus on world context, construction and technology, and history of architectural ideas. P/NP or letter grading.

10B. History of Architecture and Urban Design: Baroque to Contemporary Moment. (5) Lecture, three hours; discussion, one hour; outside study, 11 hours. Survey of architectural and urban history from 1600 to present in global context. Exploration of buildings, cities, spaces, artifacts, landscapes, and ideas through their relation to geopolitical conditions and through their relation to theories of design. P/NP or letter grading.

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

30. Introduction to Architectural Studies. (5) Lecture, three hours; discussion, one hour; outside study, 11 hours. Exploration of role of built environment in social, cultural, and political life; how buildings are constructed, what they mean, effects they have on world, and ways they imagine new futures and shape private and public life. Focus on series of contemporary case studies for what each reveals about new possibilities for shaping world in which we live, with emphasis on how architecture extends to cities, roads, books, and films. Consideration of historical context and cultural genealogy of particular buildings and environments, material and economic conditions of building, and more. P/NP or letter grading.

M125A. Hands-on laboratory-based investigation of emerging digital mapping technologies, including instruction in software applications, virtual globes, and geographic information systems (GIS). Critique and creation of maps of cultural phenomena, employing skills students learned in Ancient Near East to real-world data sets in humanities and social sciences. By mastering emerging technologies in field of cultural digital mapping, students take part in evaluation and production of source represen- tations of complex data, becoming active participants in development of this new field. How to use suite of GIS and geographic tools. Fostering of creative ap- proaches to and engagement with mapping technolo- gies: What new questions can be asked and answered using these technologies? How does one reason, argue, and solve real-world problems through digital cultural mapping? Design, development, and imple- mentation of student mapping-based research proj- ects. Part of Digital Cultural Mapping Project sup- ported by W.M. Keck Foundation. P/NP or letter grading.

Upper-Division Courses

102. Introduction to Representation. (2) Studio, four hours; outside study, two hours. Limited to currently enrolled college/university students and graduates of colleges/universities. Introduction to techniques of spatial representation in architectural design. How to communicate using two- and three-di- mensional drawing and modeling. Analog and digital techniques and opportunity afforded by moving between them. Analog techniques include orthographic and axonometric projection. Digital techniques focus on computer graphics fundamentals, including bit map and vector graphic imaging using Adobe suite and modeling using Rhinoceros. Offered in summer only. Letter grading.

103. Introduction to Architectural Design. (6) Studio, 18 hours. Limited to currently enrolled college/university students and graduates of colleges/universities. Introduction to basic architectural design principles and problem solving. How to control point, line, surface, and volume to shape spaces for human use. Visual analysis as tool for discussing and understanding organization. Techniques of repetition, variation, order, scale, and rhythm. Use of case-study analysis to uncover disciplinary issues within design prob- lems and production of individual solutions to problems. Offered in summer only. Letter grading.

121. Studio I. (6) Studio, eight hours; outside study, 10 hours. Limited to Architectural Studies majors. Introduction to basic architectural design principles and problem solving. How to control point, line, surface, and volume to shape spaces for human use. Visual analysis as tool for discussing and understanding organization. Techniques of repetition, variation, order, scale, and rhythm. Use of case-study analysis to uncover disciplinary issues within design problems, as well as to produce individual solutions to those problems. Letter grading.


123. Studio III. (6) Studio, eight hours; outside study, 10 hours. Enforced requisite: courses 121, 122. Limited to Architectural Studies majors. Introduction to disciplinary issues, techniques, and organizations of landscape and how those can influence design of building and site. Use of material and tem- poral characteristics of architecture relative to role those play in landscape. Introduction to issues of ac- cessibility and egress as systems of movement. Struc- ture as spatial component that includes construction, topography, climatology, accessibility, and their mutual interaction. Letter grading.

125B. Digital Cultural Mapping Course B: Google Earth, Georefermentation, Hypotheses, and Timelines. (4) (Same as Ancient Near East M125B.) Laboratory, three hours; discus- sion, one hour. Enforced requisite: Ancient Near East
141. Technology I: Projections. (3) Lecture, four hours; outside study, 11 hours. Limited to Architectural Studies majors. Introduction to techniques of spatial representation as they relate to architectural design. How to communicate using two- and three-di-

mensional spatial design techniques. Analog and digital techniques and opportunities afforded by moving between both. Analog techniques include orthographic and axonometric projection. Digital techniques focus on computer graphics fundamentals, including bit map and vector graphic imaging using Adobe suite and modeling using Rhinceros. Letter grading.

142. Technology II: Building Materials and Methods. (5) Lecture, four hours; outside study, 11 hours. Limited to Architectural Studies majors. Intro-
duction to construction systems and materials in rela-
tion to design, such as framed, bearing wall, or hybrid systems, and organization of construction documents. Letter grading.

143. Technology III: Digital Technology. (5) Labo-
ratory, four hours; outside study, 11 hours. Limited to Archi-
itectural Studies majors. Overview of three-dimen-
sional computer-aided visualization concepts teaching applications of AutoCAD and Maya and their use relative to process of design and visual communi-
cation. Basic representation methods and tools and introduction to advanced concepts required to com-
nicably interact with computer and to explore and understand communicative capacities of different methods of representation. Explanation of bitmap versus vector graphics, typography basics, and color output and integration for print and Web, and intro-
duction to three-dimensional digital modeling and fab-
rication. Letter grading.

151. Introduction to Sustainable Architecture and Community Planning. (4) [Same as Environment M153.] Lecture, three hours. Relationship of built envi-
ronment to natural environment through whole sys-
tem approach, with focus on sustainable design of buildings and planning of communities. Emphasis on energy efficiency, renewable energy, and appropriate use of resources, including materials, water, and land. Concurrently scheduled with course CM247A. Letter grading.

188SA. Individual Studies for USIE Facilitators. (1) Tutorial, to be arranged. Enforced corequisite: Honors Collegium 101E. Limited to junior/senior USIE facilita-
tors. Individual study in regularly scheduled meetings with faculty mentor to discuss selected USIE seminar topic, conduct preparatory research, and begin prepa-
ration of syllabus. Individual contract with faculty mentor required. May be repeated for credit. Letter grading.

188SB. Individual Studies for USIE Facilitators. (1) Tutorial, to be arranged. Enforced corequisite: course 188SA. Limited to junior/senior USIE facilitators. Indi-
vidual study in regularly scheduled meetings with faculty mentor to finalze course syllabus. Individual contract with faculty mentor required. May not be repeated. Letter grading.

188SC. Individual Studies for USIE Facilitators. (2) Tutorial, to be arranged. Enforced corequisite: course 188SB. Limited to junior/senior USIE facilitators. Indi-
vidual study in regularly scheduled meetings with fac-
ulty mentor while facilitating USIE 88S course. Indi-
vidual contract with faculty mentor required. May not be repeated. Letter grading.

189. Advanced Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to undergraduate lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible stu-
dents. Contact faculty member for content noted on transcript. P/NP or letter grading.

191. Interventions: Urban humanities in Action (Capstone Studio). (4) Seminar. Four hours; studio, two hours. Requisites: Digital Humanities 30, 151. Using league drawing and design students address issues of spatial justice through scholarly and practical urban interventions. Projects deploy spatial technolo-
gies introduced in Digital Humanities 30 and theor-
etical knowledge gained in Digital Humanities 151 to create urban humanist action-projects. Letter grading, consideration to programming, symbolism, and viewing, as well as to technological, aesthetic, and po-
tical factors. S/U or letter grading.

288. Renaissance Architecture and Urbanism. (4) Lecture, three hours. Examination of architectural de-
velopments from 15th to 17th century. Primary focus on Italian renaissance and Mediterranean. Analysis of individual structures, cities, and landscape designs to reveal changing cultural and theoretical values, as well as specific aesthetic and iconographic content. Letter grading.

289. Special Topics in Architecture and Urban De-
sign. (2 to 4) Lecture, two hours; discussion, two hours. Selected academic topics initiated by students, students, others, or faculty member. May be repeated for credit. S/U or letter grading.

290. Special Topics in Critical Studies in Architectu-
ral Culture. (5) Lecture, three hours, discussion, one hour; outside study, 11 hours. Designed for grad-
uate students. Exploration of how architecture oper-
ates in relation to wider cultural, historical, and theo-
retical issues. May be repeated for maximum of 30 units. Letter grading.

291. Theory of Architectural Programming. (4) Le-
ecture, three hours. Examination of concepts and methods of architectural programming and its interre-
tection to design process; planning of design process; vari-
cies in techniques for architectural investigations; para-
metric content, basic conditions, resources, and constraints; identification of solution types for given situations. S/U or letter grading.

M233. Politics, Ideology, and Design. (4) [Same as Urban Planning M293.] Lecture, three hours. Explora-
tion of cultural and political context of architecture and planning work. Examination of theory and practice from various periods of architectural thought to set of varied physical environments and to set of current spatialized concepts. Consideration of theoretical propositions that are shaping present urban and architectural de-
bate and concept case studies where politics and ideology shape design process. Letter grading.

294A-294B. Environmental Psychology. (4–4) Le-
tecture, three hours. Introduction to models, concepts, and theories concerning impact of environment on human behavior, perception, and thought. Review of research results concerning space perception, cogni-
tive mapping, preferences and attitudes toward envi-
ronment, effects of crowding and stress, personal space and territoriality. Letter grading.

M295. Introduction to Urban Humanities. (4) [Same as Urban Planning M295.] Seminar, six hours; studio, six hours. Core introduction to urban humanities. Ana-
lytical and descriptive methods of humanities paired with additive and projective methods of architec-
tural and urban design to better understand contem-
porary state of human environment. Focus on Los An-
geles, with concepts seminar, methods laboratory, projects studio, and site visit components. Offered in summer only. S/U or letter grading.

296. Proseminar: Critical Studies in Architectural Culture. (4) Seminar, three hours. Orientation for PhD students to tradition of architectural theory, scholar-
ship, and research and to current research directions and questions, through intensive reading and critical discussion. Letter grading.

375. Teaching Apprentice Practicum. (1 to 4) Seminar, to be arranged. Enforced corequisite: apprenticeship per-
personal employment as teaching assistant, associate, or fellow. Teaching apprenticeship under active guid-
ication administration of curricular and instruction at UCLA. May be repeated for credit. S/U grading.

401. Advanced Topics Studio. (6) Studio, 12 hours; outside study, six hours. Preparation: satisfactory completion of intermediate-level studios (courses 412, 413, 414) or MAreh II student. Students may choose (through lottery) from several different projects fo-
cusing on special topics in architectural and urban de-
sign to be offered by faculty members. May be re-
peated for credit. Letter grading.

402. Final Advanced Topics Studio. (6) Studio, 12 hours; outside study, six hours. Preparation: satisfac-
tory completion of intermediate- and advanced-level


433. Introduction to Building Construction. (2) Laboratory, two hours; outside study, four hours. Introduction to construction techniques. Study of physical principles and materials for making architecture through series of exercises and field trips. Letter grading.

437. Building Construction. (4) Laboratory, four hours; outside study, eight hours. Principles of structure and enclosure, with focus on production and materials research. Exploration of building elements for formal and functional properties; in addition, design development of project in previous studio may be developed in detail with integration of range of technical systems. Letter grading.

441. Environmental Control Systems. (4) Lecture, four hours. Design of mechanical systems necessary for functioning of large buildings: air handling, fire and life safety, plumbing, vertical and horizontal circulation, communication and electrical power distribution, analysis of interaction of these systems and their integrated effects on architectural form of building. S/U or letter grading.

442. Building Climatology. (4) Lecture, four hours. Preparation: basic physics. Design of buildings that specifically respond to local climate; utilization of natural energies, human thermal comfort; sun motion and sun control devices; use of plant materials and landform to modify microclimate. S/U or letter grading.


495. Teaching Architectural History, Theory, and Criticism. (2) Seminar, three hours. Offers guidance and support to first-time teaching assistants (TA’s) in Department of Architecture and Urban Design. Covers topics which include teaching philosophies, teaching methodologies, assessment/evaluation/grading practices, and professional development specific to academic professions in the field of architecture. Readings and assignments to develop fundamental teaching principles and provide methods with which to design course syllabi and evaluate/gather resources for course content. S/U or letter grading.

496. Special Projects in Architecture. (2 to 8) Tutorial, to be arranged. Projects initiated either by individual students or student teams and directed by faculty member. May be repeated for credit. S/U or letter grading.

497. Special Projects in Urban Design. (2 to 8) Tutorial, to be arranged. Projects initiated either by individual students or student teams and directed by faculty member. May be repeated for credit. S/U or letter grading.

ART

School of the Arts and Architecture

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Art

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Andrea Fraser, Chair

Professors

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Lari G. Pittman, MFA
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Raymond B. Brown, MA
Barbara Drucker, MFA
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Mary Kelly, MA
Paul D. McCarthy, MFA
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Nancy J. Rubins, MFA
Adrian A. Saxe, BFA
James Welling, MFA

Assistant Professors

Vishal Jugdeo, MFA
Candice C. Lin, MFA
Anna M. Sew Hoy, MFA
Rodrigo A. Valenzuela, MFA

Lecturer

Jacob M. Samuel, BFA

Scope and Objectives

The Department of Art offers professional art training with an emphasis on interdisciplinary experimentation. The core studio curriculum is supported by courses in art history, theory, and criticism.
Undergraduate Study

The Art major is a designated capstone major. As part of the upper-division advanced studio requirements, all undergraduate students are required to complete a senior studio course that emphasizes analysis and criticism of specific works of art and ideas. Students develop and present a body of creative work in which they exhibit familiarity with and competence in a range of techniques and media, and a level of proficiency in utilizing particular media appropriate to advanced-level studio projects. Graduates are expected to demonstrate familiarity with historical precedents for and issues in contemporary art, to understand terms and concepts relevant to contemporary art discourse, and to have the ability to effectively articulate an analysis of works of art to participate in a studio critique.

Art BA

Capstone Major

Learning Outcomes

The Art major has the following learning outcomes:

- Familiarity with and competency in multiple techniques and media, and a level of proficiency utilizing particular media appropriate to advanced studio projects
- Development of a body of original artwork
- Familiarity with historical precedents for, and issues in, contemporary art
- Understanding of terms and concepts relevant to contemporary art discourse
- Ability to effectively analyze works of art through studio critique

Preparation for the Major


The Major

Required: A minimum of nine upper-division courses, including Art 100 or 132 or one course from an approved list of upper-division nonmajor courses, six courses from at least four of the following studio areas: 130, 133, 137, 140, 147, 148, one course from Art History M110A through 185, one capstone senior studio course (Art 150), and 8 units of art electives.

Each course applied toward major requirements must be taken for a letter grade, with the exception of Art 190, 193, and 195, which are offered only on a Passed/Not Passed grading basis. Of those, no more than 4 units total may be applied toward the upper-division art elective requirement.

Graduate Study

Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Division website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Graduate Degrees

The Department of Art offers the Master of Fine Arts (MFA) degree in Art.

Art

Lower-Division Courses

1A. Drawing. (4) Studio, eight hours; five hours arranged. Course in basic drawing skills intended as preparation for work in variety of media. P/NP or letter grading.

1B. Sculpture. (4) Studio, eight hours; five hours arranged. Introduction to concepts and forms of contemporary sculpture to become familiar with tools and material to enable students to visually manifest their individual ideas. Presentation of work of contemporary artists. P/NP or letter grading.

11A. Painting. (4) Studio, eight hours; five hours arranged. Basics of painting: introduction to technical procedures, tools, and materials. Discussion of fundamental conceptual and formal concerns. P/NP or letter grading.

11B. Photography. (4) Studio, eight hours; five hours arranged. Fundamentals in technique, with emphasis on individual projects. Varied approaches, processes, and applications of photographic medium within context of art, supported by studies in theory, aesthetics, and history of photography. P/NP or letter grading.

11C. Printmaking. (4) Studio, eight hours; five hours arranged. Introductory survey of various technical and conceptual concerns in variety of printmaking media as preparation for more focused study in particular media at upper-division level. P/NP or letter grading.

11D. New Genres. (4) Studio, eight hours; five hours arranged. Introduction to projects in installation, performance, video, film, intermedia, and other nontraditional media and processes. P/NP or letter grading.

11E. Ceramics. (4) Studio, eight hours; five hours arranged. Introduction to ceramic materials and processes, with emphasis on personal and cultural expression in ceramic media. Discussion of ceramics in contemporary artistic practice and social history of ceramic art. Letter grading.

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

20. Production. (2) Studio, four hours. Limited to Art majors. Instruction in production techniques and processes, including basic recording, imaging and sound. Discussion of professional setups and standard practices as well as alternatives. Review of use of tools, software, workflow, storage, and output modalities. Letter grading.

21A. Production: Photographic Print. (2) Studio, four hours. Requisite: course 11B. Limited to Art majors. Not open for credit to students with credit for course 20. Techniques and processes, including basics of shooting, editing, and output for still images and photographs. Professional setups and standard practices as well as alternatives. Review of use of tools, software, workflow, storage, and output modalities. Letter grading.

21B. Production: Moving Image and Sound. (2) Studio, four hours. Limited to Art majors. Not open for credit to students with credit for course 20. Moving image and sound production and post-production techniques, tools, and processes, including instruction in basics of shooting, editing, output, and display. Familiarization with production skills, equipment, setups, and standard practices used in creation of moving image and/or sound works. Instruction in use of cameras, lights, and microphones, and recording and re-creating setups and techniques, including handheld, fig-rig, dolly-shots, and green screens. Introduction to and development of familiarity with post-production software, processes of editing, animating, exporting, and presenting high-quality sound and moving image works. Letter grading.

31A. Rise of Modernism in Global Context. (5) Lecture, three hours; discussion, one hour; field trips, three hours. Examination of the historical forces underlying development of modernist thought on art and society from mid-19th through early-20th centuries. Exploration of origins, development, theory, and practice of modernism in context of colonialism and industrialization. Letter grading.

31B. Global Modernism. (5) Lecture, three hours; discussion, one hour; field trips, three hours. Art majors should complete courses 31A, 31B, and 31C in sequence in first year. Continuing exploration of modernist ideas through mid-20th century, with focus primarily on work made from 1920s to 1960s globally. Examination of how modernist ideas and practices were influenced by industrialization, colonization, colonialism, world wars, and emancipatory movements. Letter grading.

31C. Modernism and Its Discontents. (5) Lecture, three hours; discussion, one hour; field trips, three hours. Art majors should complete courses 31A, 31B, and 31C in sequence in first year. Continued impact of modernist ideas from 1960s to present, covering shift from modernist to postmodernist practices and theories. Examination of critiques of modernism drawing from emancipatory movements and poststructuralist, feminist, queer, performance, postcolonial, and critical race theory. Letter grading.

70. Summer Art Institute: Special Topics in Studio. (3) Studio/lecture/field trips, 45 hours. Limited to high school students in Summer Art Institute. Two-week intensive in studio art covering range of media and contemporary art practices and combination of focused studio work, lecture/presentations, field trips, critiques, and final exhibition of student work. Offered only as part of Summer Institute. May be repeated once for credit. P/NP grading.

89. Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to lower-division lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

99. Student Research Program. (1 to 2) Tutorial (sponsored research or other scholarly work), three hours per week per unit. Entry-level research for lower-division students under guidance of faculty mentor. Students must be in good academic standing and enrolled in minimum of 12 units (excluding this course). Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP grading.

Upper-Division Courses

100. Issues in Contemporary Art. (5) Lecture, three hours; discussion, one hour; screenings/research, 11 hours; requisites: courses 31A, 31B, 31C. Selected course 20. Techniques and processes, including basics of shooting, editing, and output for still images and photographs. Professional setups and standard practices as well as alternatives. Review of use of tools, software, workflow, storage, and output modalities. Instruction in postproduction skills and tools for editing and altering images and producing high-quality printed images. Letter grading.
topics in theoretical, critical, aesthetic, and historical studies and their relevance to practice. May be repeated for maximum of 20 units. Letter grading.

130. Advanced Drawing. (5) Studio, eight hours; seven hours arranged. Requisite: course 1A. Drawing as both independent expressive medium and as means of self-realization. May be repeated for maximum of 20 units. Letter grading.

132. Survey of Critical Thought. (5) Lecture, three hours; discussion, one hour; screenings/research, 11 hours. Requisites: courses 31A, 31B, 31C. Overview of premodern, modern, and postmodern theory as reflected in critical writing and artistic practice, with emphasis on 1940s to present. Specific topics may vary. May be repeated for maximum of 20 units. Letter grading.

133. Advanced Painting. (5) Studio, eight hours; seven hours arranged. Requisite: course 11A. Varied media and subjects to further develop students’ technical and expressive means to implement their ideas. May be repeated for maximum of 20 units. Letter grading.

137. Advanced New Genres. (5) Studio, eight hours; seven hours arranged. Requisite: course 11D. Emphasis to be selected by faculty member from one of more of following media: installation, performance, video, film, other nontraditional media and processes. May be repeated for maximum of 20 units. Letter grading.

140. Advanced Printmaking. (5) Studio, eight hours; seven hours arranged. Requisite: course 11C. Selected studies in fine printmaking, historical and contemporary: lino/monoprint, engraving, lithography, silk screen, mixed media. May be repeated for maximum of 20 units. Letter grading.

145. Advanced Sculpture. (5) Studio, eight hours; seven hours arranged. Requisite: course 1B. Selected studies in sculpture, historical and contemporary: modeling, carving, casting, welding, and other media; forms in spaces, including installations and nonstudio pieces. May be repeated for maximum of 20 units. Letter grading.

147. Advanced Photography. (5) Studio, eight hours; seven hours arranged. Requisite: course 11B. Selected projects in photography and related media, concentrating on development of individual student’s artwork. Studio emphasis with special topics in theory and critical analysis. May be repeated for maximum of 20 units. Letter grading.

148. Advanced Ceramics. (5) Studio, eight hours; seven hours arranged. Requisite: course 11E. Advanced topics in ceramic art, with emphasis on individualized creative experimentation with materials and techniques introduced in course. Methods and processes to be selected from range of possibilities, including handforming and modeling, preparation and use of molds, slipcasting, and use of potter’s wheel. May be repeated for maximum of 20 units. Letter grading.

150. Senior Studio. (5) Studio, eight hours; seven hours arranged. Limited to seniors. Advanced studio projects, with emphasis on analysis and criticism of individual creative work and ideas. Letter grading.

170. Special Topics in Studio. (2 to 4) Studio/museum visits. Two to four hours arranged. Current topics in art theory, practice, and criticism, offering students opportunity to explore these issues in studio context through critique of work and discussion of reading. May be repeated for maximum of 16 units. P/NP or letter grading.

C180. Seminar; Art. (4) Seminar, three hours. Limited to juniors/seniors. Advanced topics in critical theory and study of contemporary art, with emphasis on individuals, issues, and methodologies. Possible areas of study from structuralism, deconstruction, feminist and psychoanalytic theory, commodification, and censorship. May be repeated for credit. Concurrently scheduled with course C280. Letter grading.

C181. Exhibition and System. (4) Seminar, four hours. Preparation: at least one course from 100 through 150. Examination of temporary exhibition and its associated field of publications as intertextual system of meaning, beginning with individual works and proceeding to original analysis of current exhibitions. Concurrently scheduled with course C281. Letter grading.

C182. Exhibitions and Public Programs. (4) Seminar, four hours. Preparation: at least one course from 100 through 150. Thorough consideration of principles of program planning and community development in relation to visual arts and work of art museums. Concurrently scheduled with course C282. Letter grading.

C183. Special Topics in Art. (2 or 4) Seminar, six hours (2-unit course) or 12 hours (4-unit course). Preparation: at least one course from 100 through 150. Selected topics in art explored through variety of approaches: discussion, readings, discussion, research papers, and oral presentations. Topics announced in advance. May be repeated for credit. Concurrently scheduled with course C283. Letter grading.


M185. Whose Monument Where: Course on Public Art. (4) Same as Chicana and Chicano Studies M180 and World Arts and Cultures M128.) Lecture, four hours. Recommended corequisite: course M18A, M18B, or M18C. Examination of public monuments in U.S. as basis for cultural insight and critique of American values as seen through the eyes of artist. Use of urban Los Angeles as textbook in urban space issues such as who is public, what is public space at end of 20th century, what defines neighborhoods, and do different ethnic populations use public space differently. P/NP or letter grading.

M186A. Beyond Mexican Mural: Beginning Murals and Community Development. (4) Same as Chicana and Chicano Studies M186AL and World Arts and Cultures M125A.) Studio/lecture, four hours. Corequisite: course M186AL. Investigation of muralism as method of community education, development, and empowerment. Exploration of issues through development of large-scale collaborative digitally created images and/or painting for placement in community. Students research, design, and work with community participants. Continuation of project through installation, documentation, and dedication, with work on more advanced independent projects. P/NP or letter grading.

M190A. Chicana/Masculino Mural: Advanced Murals and Community Development. (4) Same as Chicana and Chicano Studies M190 and World Arts and Cultures M125C.) Studio/lecture, six hours. Requisites: courses M186B, M186BL. Corequisite: course M186A. Continuation of investigation of muralism as method of community education, development, and empowerment. Exploration of issues through development of large-scale collaborative digitally created images and/or painting for placement in community. Students research, design, and work with community participants. Continuation of project through installation, documentation, and dedication, with work on more advanced independent projects. P/NP or letter grading.

C187. Contemporary Art Collections in Los Angeles. (2) Seminar, three hours; outside study, three hours. Limited to junior/senior Art majors. Introduction to major Los Angeles museums and institutions, and to the promotion and conservation of critical issues regarding concept of collections and collecting. Visits to institutions and collections and discussion of vision, goals, and scope of collections, as well as individual works. Concurrently scheduled with course C287. Letter grading.


1885C. Individual Studies for USIE Facilitators. (2) Tutorial, to be arranged. Enforced corequisite: course 1885B. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor while facilitating USIE BBS course. Individual contract with faculty mentor required. May not be repeated. Letter grading.

189. Advanced Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as an adjunct to undergraduate lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honor content noted on transcript. P/NP or letter grading.

190. Studio/Research Colloquia in Art. (1) Seminar, three hours. Corequisite: course 197 or 198. Limited to juniors/seniors. Designed to bring together students undertaking supervised studio project or research in seminar setting with one or more faculty members to discuss their own work or related work in discipline. Led by one supervising faculty member. May be repeated for maximum of 16 units. P/NP grading.

193. Journal Club Seminars: Current Topics in Art. (1) Seminar, three hours. Limited to junior/senior Art majors. Discussion of recent books, journal articles, visiting artist lectures, screenings, and readings in field. May be repeated for credit. P/NP grading.

195. Community Internships in Art. (2 to 4) Tutorial, six to 12 hours. Limited to juniors/seniors. Art-related internships supervised in community agency, business, or institution. Students meet on regular basis with instructor and provide periodic reports of their experience. Only 4 units may be applied toward upper-division art elective requirement. May be repeated for maximum of 8 units. Individual contract with supervising faculty member required. P/NP grading.

197. Individual Studies in Art. (2 to 4) Tutorial, to be arranged. Preparation: 3.0 grade-point average in major. Corequisite: course 190. Limited to junior/senior Art majors. Individual intensive studio project or study, with scheduled meetings to be arranged between faculty member and student. Tangible evidence accepted.
Graduate Courses

271. Graduate Painting. (2 to 8) Studio, eight hours. Study in painting and associated media. May be repeated for credit with consent of adviser. Letter grading.

272. Graduate Printmaking. (2 to 8) Studio, eight hours. Studies in traditional and experimental printmaking. Selected studies in intaglio, lithograph, woodcut, silk screen, photo printmaking, and mixed media. May be repeated for credit with consent of adviser. Letter grading.

273. Graduate Sculpture. (2 to 8) Studio, eight hours. Studies in sculpture with specific attention to ongoing nature, specificity, and approach to each student’s particular discipline. Individual studio visits and consultation. May be repeated for credit with consent of adviser. Letter grading.

274. Graduate Photography. (2 to 8) Studio, eight hours. Studies concentrating on development of individual students’ artwork. Studio emphasis with adjacent studio in theoretical and critical analysis. Specific attention to original, expressive, social, and humanistic values of art. May be repeated for credit with consent of adviser. Letter grading.

276. Graduate Sculpture. (2 to 8) Studio, eight hours. Studies in sculpture with specific attention to original, expressive, social, and humanistic values of art. May be repeated for credit with consent of adviser. Letter grading.

276. Graduate Group Critique. (4) Discussion, four hours; tutorial, to be arranged. Group critique/discussion of students’ research. Additional tutorial meetings by arrangement with instructor. May be repeated for credit. Letter grading.

277. Graduate Ceramics. (2 to 8) Studio, eight hours. Studies in ceramics and art with investigation of traditional and experimental processes and intellectual approaches to art. Individual studio visits, consultation. May be repeated for credit with consent of adviser. Letter grading.

278. Interdisciplinary Studio. (2 to 8) Studio, eight hours. Tutorial focused on directed research, studio visits, and group discussions of recommended readings. May be repeated for credit. S/U or letter grading.

279. Open Area Studio. (2 to 8) Studio, 12 hours. Limited to Art MFA students. Non-medium-specific course in which students work to establish, expand, and deepen their studio practices, including technical and research methodologies, to develop significant body of original work reflecting students’ expressive and theoretical concerns. May be repeated for credit. Letter grading.

280. Seminar: Art. (4) Seminar, three hours. Advanced topics in critical theory and study of contemporary art, with emphasis on individuals, issues, and methodologies. Possible areas of study from structuralism, deconstruction, feminist and psychoanalytic theory, semiotics, critical theory, and critical discourse. May be repeated for credit. Concurrently scheduled with course C180. Letter grading.

281. Exhibition and System. (4) Seminar, four hours. Examination of temporary exhibition and its associated field of publications as intertextual system of meaning, beginning with individual works and proceeding to on-site analysis of current exhibitions. May be repeated for credit. Concurrently scheduled with course C181. Letter grading.

282. Exhibitions and Public Programs. (4) Seminar, four hours. Introduction to principles of program planning and community development in relation to visual arts and work of art museums. May be repeated for credit. Concurrently scheduled with course C182. Letter grading.

283. Special Topics in Art. (2 or 4) Seminar, six hours (2-unit course) or 12 hours (4-unit course). Selected topics in art explored through variety of approaches that may include projects, readings, discussions, research papers, and oral presentations. Topics announced in advance. May be repeated for credit. Concurrently scheduled with course C183. Letter grading.

287. Contemporary Art Collections in Los Angeles. (2) Seminar, three hours; outside study, three hours. Exploration of critical issues regarding concept of collections and collecting. Visits to institutions and collections and discussion of vision, goals, and scope of collections, as well as individual works. Concurrently scheduled with course C187. Letter grading.

375. Teaching Apprentice Practicum (1 to 4). Seminar, to be arranged. Preparation: apprentice personnel employment as teaching assistant, associated faculty member or fellow. Teaching apprenticeship under active guidance and supervision of regular faculty member responsible for curriculum and instruction at UCLA. May be repeated for credit. S/U grading.

400A. Visiting Artists Studio. (2–2) Studio, six hours. Designed for MFA students. Introduction to visiting artists in their area of study, with focus on one-on-one critiques with wide range of practitioners. In Progress (400A) and S/U (400B) grading.

400C. Visiting Artists Studio. (4) Studio, 12 hours. Limited to graduate art students. Introduction to visiting artists in their area of study, with focus on one-on-one critiques with wide range of practitioners. S/U grading.

401. MFA Working Groups. (2) Research group meeting, two hours. Limited to MFA students. Three or more MFA candidates propose research and/or studio topic and invite Art Department faculty member to mentor group/topic. May be repeated for credit. S/U grading.

495. Teaching Assistant Training Practicum. (2) Seminar, three hours; outside study, three hours. Forum for first-year teaching assistants for discussion and exploration of teaching pedagogy and classroom mechanics. Problems and practices of teaching art at college level, as well as role of teaching assistants within the department. Designed to help new teaching assistants develop teaching skills and to orient them to department and University policies and resources. May not be applied toward degree requirements. S/U grading.

501. Cooperative Program. (2 to 8) Tutorial, to be arranged. Preparation: consent of UCLA graduate advisor and graduate dean, and host campus instructor, department chair, and graduate dean. Used to record enrollment of UCLA students in courses taken under cooperative arrangements with USC. S/U grading.

596. Directed Individual Study or Research. (2 to 8) Tutorial, to be arranged. May be repeated for credit with consent of adviser. S/U or letter grading.

597. Preparation for Master’s Comprehensive Examination. (2 to 12) Tutorial, to be arranged. May not be applied toward MA or MFA course requirements. May be repeated. S/U grading.

Art History

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Art History
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Miwon Kwon, PhD, Chair

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Sharon E. Gerstel, PhD (George P. Kolovos Family Centennial Term Professor of Hellenic Studies)
Miwon Kwon, PhD
Hui-Shu Lee, PhD
Saloni Mathur, PhD
Steven D. Nelson, PhD
Debora L. Silverman, PhD (Presidential Professor of Modern European History)
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Kristopher W. Kersey, PhD
Zirwat Chowdhury, PhD
Kristopher W. Kersey, PhD

Associate Professors
Meredith M. Cohen, PhD
Stella E. Nair, PhD

Assistant Professors
Lamia Balafrej, PhD

Adjunct Professor
John M.D. Pohl, PhD

Adjunct Assistant Professors
Marla C. Berns, PhD
Gregory T. Harwell, PhD

Scope and Objectives

The Department of Art History offers programs leading to the Bachelor of Arts, Master of Arts, and PhD degrees. It endorses an interdisciplinary and intercultural approach to art history of all periods and places. By thinking across current categories and boundaries and even critically interrogating art history itself, students are encouraged to question the canon, rethink the relationship between margins and centers, and practice a socially and politically responsible art history.

The rich and varied art resources available at UCLA and throughout Southern California offer students extraordinary opportunities to supplement the formal curriculum.

Undergraduate Study

The Art History Department offers a designated capstone program for undergraduate majors. Students have options for completing a senior honors thesis, a directed independent study, an advanced undergraduate seminar, a museum studies internship, a research assistantship, or a faculty-approved upper-division course that includes additional coursework culminating in the completion of a capstone paper. Through their capstone work, students are expected to conceive and execute a research or creative project; identify and evaluate documentation relevant to the discipline; develop an enhanced capacity for writing and research, critical and analytical thinking, and competent familiarity with art his-
Art History Minor

The Art History minor is designed for students who wish to augment their major with a series of courses that analyze the history, theory, and criticism of diverse visual traditions in world culture. On the lower-division level, the minor exposes students to overviews of these traditions in broad time periods from ancient to modern, from the regional to the global, as well as to courses that trace the historical significance of art in the context of specific thematic and media concerns. upper-division courses offer more specialized content that explores crucial episodes or areas with more intense and rigorous theoretical and methodological strategies.

To enter the minor students must be in good academic standing with an overall grade-point average of 2.0 or better, have completed 45 units, and file a petition with the student affairs officer in 2068 Dodd Hall, 310-825-3992. Students are advised to declare the minor early and meet with the student affairs officer to plan a coherent program.

Required Lower-Division Courses (15 units): Three courses selected from Art History 20, 21, 22, 23, 24, 25, 27, 28, 29, 30, 31.

Required Upper-Division Courses (20 units): Five art history courses as follows:


2. Two courses from at least two of the following five geographic regions: (a) Africa—Art History C143A, C143B, C143C, (b) Asia—courses C148A through C148E, C149, 150A, 150B, C151, C152A through C152D, C153, 154A through 154D, C155, 156, C158A, (c) Europe and U.S.—courses C159A, C159B, C159C, C159D, 154A, (b) early modern, 1400 to 1700—courses 121A through 121D, 124, 125A, 125B, C126, C128A, C128B, C128C, C129A, C129B, C129C, 130, C131A, C131B, C131C, 132, C133A through C133E, CM135A, CM135B, C136A, C142A, C142B, 143, 144, and (c) modern/contemporary, 1700 to present—courses M118B, 127A, 127B, M127C, C128A, C128B, C128C, C129A, C129B, from ancient to modern, from the regional to the global, as well as to courses that trace the historical significance of art in the context of specific thematic and media concerns. upper-division courses offer more specialized content that explores crucial episodes or areas with more intense and rigorous theoretical and methodological strategies.

To enter the minor students must be in good academic standing with an overall grade-point average of 2.0 or better, have completed 45 units, and file a petition with the student affairs officer in 2068 Dodd Hall, 310-825-3992. Students are advised to declare the minor early and meet with the student affairs officer to plan a coherent program.

Required Lower-Division Courses (15 units): Three courses selected from Art History 20, 21, 22, 23, 24, 25, 27, 28, 29, 30, 31.

Required Upper-Division Courses (20 units): Five art history courses as follows:


3. One additional art history elective selected from courses 100 through 185 (20 units minimum); courses 196, 197A, and 197B may also be included. With prior approval of the undergraduate adviser, one of these courses may be taken in another department.

While the department does not require language training beyond the College requirement, Art History majors, particularly those planning graduate work, are strongly encouraged to study foreign languages beyond what is required by the College.

Each course must be taken for a letter grade.

Honors Program

The honors program is designed for Art History majors who are interested in carrying out an independent research project that culminates in a departmental honors thesis of approximately 30 pages. The program gives qualified students the opportunity to work closely with individual professors on an in-depth supervised research and writing project.

All senior Art History majors who have completed a minimum of six upper-division art history courses with a departmental grade-point average of 3.5 or better and an overall GPA of 3.0 or better are eligible to apply. Consult the art history student affairs officer no later than the beginning of fall quarter of the senior year.

To qualify for graduation with honors, students must (1) complete all requirements for the major, (2) have a cumulative grade-point average of 3.5 or better in upper-division courses in the department and an overall GPA of 3.0 or better, and (3) complete Art History 198A and 198B with grades of A— or better.

To qualify for graduation with highest honors, students must (1) complete all requirements for the major, (2) have a cumulative GPA of 3.85 or better in upper-division courses in the department and an overall GPA of 3.65 or better, and (3) complete courses 198A and 198B with grades of A— or better.

Art History Minor

The Art History minor is designed for students who wish to augment their major with a series of courses that analyze the history, theory, and criticism of diverse visual traditions in world culture. On the lower-division level, the minor exposes students to overviews of these traditions in broad time periods...
Graduate Study
Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Division website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Graduate Degrees
The Department of Art History offers Master of Arts (MA) and Doctor of Philosophy (PhD) degrees in Art History.

Art History
Lower-Division Courses
19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

20. Ancient Art. (6) Lecture, three hours; quiz, one hour; museum field trips. Prehistoric, Egyptian, Mesopotamian, Aegean, Greek, Hellenistic, and Roman art and architecture. P/NP or letter grading.


22. Renaissance and Baroque Art. (5) Lecture, three hours; discussion, one hour. Survey of Renaissance and baroque art. P/NP or letter grading.

23. Modern Art. (5) Lecture, three hours; discussion, one hour; museum field trips. History of modern art from 1860s to 1960s, from Manet and impressionists to pop art and minimalism. Study of origins and social functions, as well as aesthetic innovations and philosophical dilemmas of modernism. P/NP or letter grading.

24. Architecture in Modern World. (5) Lecture, three hours; discussion, one hour. Introduction to study of architectural history through examination of built world of past two centuries. Building technologies and forms of economic, social, and political life have produced modern built environment that is both diverse and increasingly connected. Focus on factors that have affected architecture globally and those that give regions, national and cultural periods their particular qualities. Topics include architectural and urban rami- fications of modern self-consciousness, nationalism and internationalism, industrialism and anti-colonialism, and new art and architectural theo- ries. P/NP or letter grading.

25. Museum Studies. (5) Lecture, three hours; discussion, one hour; museum field trips. General introduction to study of museums in their social and historical contexts. Examination of debates about museum’s role in society through case studies and analysis of exhibitions in range of museums including art, history, and ethnographic museums. P/NP or letter grading.

27. Art and Architecture of Ancient Americas. (5) Lecture, three hours; discussion, one hour; museum field trips. Introduction to art, architecture, and urbanism of Americas from North to South from earliest set- tlement until AD 1450. Analysis of variety of media within their historical and cultural context. P/NP or letter grading.

28. Arts of Africa. (5) Lecture, three hours; discussion, one hour; museum field trips. Introduction to arts and architecture of Africa. Examination of social and historical contexts of their production. Introduction to body of information within framework of conceptual problem through series of case studies. P/NP or letter grading.

29. Chinese Art. (5) Lecture, three hours; discussion, one hour; museum field trips. General introduction to Chinese art, covering all major periods from Neolithic to modern age. Presentation of monuments as well as artifacts in variety of media in their social and historical contexts. P/NP or letter grading.

30. Arts of Japan. (5) Lecture, three hours; discussion, one hour; museum field trips. General introduction to art, architecture, and material culture of Japan, from earliest records to present. P/NP or letter grading.

31. Art of India and Southeast Asia. (5) Lecture, three hours; discussion, one hour; museum field trips. Selection of monuments and objects from Indus subcontinent and Southeast Asia highlighting key historical, cultural, and religious concepts. Analysis of each monument or object in detail, with their relationships compared and contrasted. P/NP or letter grading.

88. Lower-Division Seminars. (4) Seminar, three hours. Limited to freshmen. Variable topics; consult Schedule of Classes or department for topics to be offered in specific term. P/NP or letter grading.

99. Honors Seminars. (4) Seminar, three hours. Limit- ed to 20 students. Designed as adjunct to lower-divi- sion lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be repeated for credit for any student but not for honors. Honors content noted on transcript. P/NP or letter grading.

99HC. Honors Contracts. (1) Tutorial, three hours. Unsupervised research in college or honors program. De- signed as adjunct to lower-division lecture course. Indi- vidual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

99. Student Research Program. (4) Seminar, three hours. Unsupervised research in college or honors program. Designed as adjunct to lower-division student under guidance of faculty mentor. Students must be in good academic standing and enrolled in minimum of 12 units (excluding this course). Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP grading.

Upper-Division Courses
100. Art Historical Theories and Methodologies. (4) Seminar, three hours. Requisites: three courses from 20 through 31, 40, or 42, or history of discipline of art history, with studies of various theoretical, critical, and methodological approaches to visual arts. Letter grading.

M101A. Art and Architecture of Ancient Egypt, Pre- dynastic Period to New Kingdom. (4) Same as An- cient Near East CM101A.) Lecture, three hours. Study of architecture, sculpture, painting, and minor arts during Predynastic period and Old Kingdom. May be repeated for credit with consent of instructor. P/NP or letter grading.

M101B. Art and Architecture of Ancient Egypt, New Kingdom to Greco-Roman Period. (4) Same as An- cient Near East CM101B.) Lecture, three hours. Study of architecture, sculpture, painting, and minor arts from New Kingdom to Greco-Roman period. P/NP or letter grading.

M101C. Ancient Egyptian Temple and City of Thebes. (4) Same as Ancient Near East M101C.) Lecture four hours; fieldwork, one hour. Focus on ancient tem- ples of city of Thebes (modern day Luxor). Theban temples are some of best-preserved cult buildings in all of Egypt, and provide context of art, architecture, and religious life prior to the fall of New Kingdom to Greco-Roman period. P/NP or letter grading.

M110D. Art and Death in Ancient Egypt. (4) Same as Ancient Near East M166E) Lecture, four hours. Ways of death, burial, funerary ritual, and afterlife be- liefs in ancient Egypt, as well as in ancient Near East and Nubia, with focus on ancient visual materials— both objects and architecture—from Predynastic to Roman periods. P/NP or letter grading.

M111. Minoan Art and Archaeology. (4) (Same as Classics M153A.) Lecture, three hours. Requisite: course 20 or Classics 10 or 51A. Study of develop- ment of art and architecture in Minoan Crete from circa 3000 to 1000 BC. P/NP or letter grading.

M112A. Mycenaean Art and Archaeology. (4) (Same as Classics M153B.) Lecture, three hours. Requisite: course 20 or Classics 10 or 51A. Study of develop- ment of art and architecture in Mycenaean Greece from circa 2000 to 1000 BC. P/NP or letter grading.

M112B. Archaic Greek Art and Archaeology. (4) (Same as Classics M153C.) Lecture, three hours. Requisite: course 20 or Classics 10 or 51A. Study of de- velopment of art and architecture of Greek world from approximately 800 through 490 BC. P/NP or letter grading.

M112C. Classical Greek Art and Archaeology. (4) (Same as Classics M153D.) Lecture, three hours. Requisite: course 20 or Classics 10 or 51A. Study of de- velopment of art and architecture of Greek world from approximately 490 through 350 BC. P/NP or letter grading.

M112D. Hellenistic Greek Art and Archaeology. (4) (Same as Classics M153E.) Lecture, three hours. Requisite: course 20 or Classics 10 or 51A. Study of de- velopment of art and architecture of Greek world from middle of 4th century BC., including transmittal of Greek art forms to Romans, P/NP or letter grading.

M113A. Etruscan Art and Archaeology. (4) (Same as Classics M153F.) Lecture, three hours. Requisite: course 20 or Classics 20 or 51B. Art of Etruscan penin- sula from circa 1000 BC. to end of Roman Republic. P/NP or letter grading.

M113B. Roman Art and Archaeology. (4) (Same as Classics M153G.) Lecture, three hours. Requisite: course 20 or Classics 20 or 51B. Art and architecture of Rome and its Empire from circa 300 BC. to AD 300. P/NP or letter grading.

M113C. Late Roman Art. (4) (Same as Classics M153H.) Lecture, three hours. Requisite: course 20 or Classics 20 or 51B. Art of Roman Empire from 2nd through 4th century AD. P/NP or letter grading.


M114A. Greco-Roman Architecture; M114B. Greco- Roman Sculpture; M114C. Greco-Roman Painting.

C114D. Selected Topics in Ancient Art. (4). Lecture, three hours. Variable topics. Variable credit that reflect interests of individual regular and/or visiting faculty members. May be repeated twice for credit. Concur- rently scheduled with course C214D. P/NP or letter grading.

CM115A. Late Antique Art and Architecture. (4) (Same as Classics M153L.) Lecture, three hours. Art and architecture of late Roman Empire and early Christian world. Concurrently scheduled with course C215A. P/NP or letter grading.


C116A. Middle Byzantine Art and Architecture. (4) Lecture, three hours. Theory and development of Byzantine art from iconoclastic controversy to 1204. Concurrently scheduled with course C216A. P/NP or letter grading.

C116B. Late Byzantine Art and Architecture. (4) Lecture, three hours. Theory and development of Byzantine art from 1204 to 1453. Concurrently scheduled with course C216B. P/NP or letter grading.

C117A. Medieval Archaeology. (4) Lecture, three hours. Archaeology of medieval world. Concurrently scheduled with course C217A. P/NP or letter grading.

C117B. Selected Topics in Medieval Art. (4) Lecture, three hours. Variable topics in medieval art that reflect interests of individual regular and/or visiting faculty members. May be repeated twice for credit. Concurrently scheduled with course C217B. P/NP or letter grading.

C118A. Medieval Armenian Art. (4) (Same as Armenian M172.) Lecture, three hours. Examination of cultural and historical contexts of Armenian miniature paintings. P/NP or letter grading.

C118B. Armenian Painting, 17th to 20th Century. (4) (Same as Armenian M173.) Lecture, three hours. Overview of development of modern Armenian painting out of its matrix in 17th and 18th centuries. P/NP or letter grading.

C118C. Selected Topics in Armenian Art. (4) Lecture, three hours. Variable topics in Armenian art that reflect interests of individual regular and/or visiting faculty members. May be repeated twice for credit. Concurrently scheduled with course C218. P/NP or letter grading.

C119A. Western Islamic Art. (4) Lecture, three hours. From Tigris and Euphrates Rivers to Spain, 7th to 16th century. P/NP or letter grading.

C119B. Eastern Islamic Art. (4) Lecture, three hours. From Tigris and Euphrates Rivers through Afghanistan and parts of central Asia; Ottoman Empire. P/NP or letter grading.

C119C. Introduction to Islamic Archaeology. (4) (Same as Islamic Studies M111 and Middle Eastern Studies M111.) Lecture, three hours. From earliest monuments of Islam in Arabia and Jerusalem to humble religious huts. Breadth of focus on archaeological and standing remains in central Islamic lands (primarily Syria, Egypt, and Iraq), Turkey, Iran, North Africa, and Spain. Profound cultural transformations occurred from birth of Islam in 7th century to early Ottoman period in 16th and 17th centuries, which are traceable in material records. Assessment of effectiveness of tools afforded by historical archaeology to aid understanding of past societies. P/NP or letter grading.

C119D. Archaeology and Art of Christian and Islamic Egypt. (4) (Same as Archaeology M112, Islamic Studies M112, and Middle Eastern Studies M112.) Lecture, three hours. Culture of Egypt transformed gradually after Muslim conquest in mid-7th century CE. According to material evidence such as ceramics, textiles, and sculptural forms, and building techniques, it is functionally impossible to separate pre-Islamic Christian Egypt from early Islamic Egypt. Although population may have become largely Muslim by 10th century, Egypt remained Coptic in many senses even to 14th century and retains sizeable Christian minority to present. Survey of archaeological remains and standing architecture of Egypt from 6th to 19th centuries and continuities in material culture and shifts in human geography and land use. P/NP or letter grading.

C120. Selected Topics in Islamic Art. (4) Lecture, three hours. Variable topics in Islamic art and architecture that reflect interests of individual regular and/or visiting faculty members. May be repeated twice for credit. Concurrently scheduled with course C220A. P/NP or letter grading.

121A. Italian Renaissance Art of 14th Century. (4) Lecture, three hours. Art and architecture of 14th century. P/NP or letter grading.


121D. Late Renaissance Art: Counter-Reformation. (4) Lecture, three hours. Required: course 22. Painting, sculpture, and architecture of late 16th and early 17th centuries considered in context of Counter-Reformation. P/NP or letter grading.


C125A. Southern Baroque Art. (4) Lecture, three hours. Art and architecture of Spain or Italy, 16th to late 17th century. Concurrently scheduled with course C225. P/NP or letter grading.

125B. Northern Baroque Art. (4) Lecture, three hours. Required: course C125A. Art and architecture of Northern Europe, 16th to late 17th century. P/NP or letter grading.

126. Selected Topics in Early Modern Art. (4) Lecture, three hours. Variable topics in early modern art that reflect interests of individual regular and/or visiting faculty members. May be repeated twice for credit. Concurrently scheduled with course C226. P/NP or letter grading.

127A. European Art of 17th and 18th Centuries. (4) Lecture, three hours. Required: course 22. Painting, architecture, and sculpture of 17th and 18th centuries examined in light of political and intellectual developments. Special emphasis on effect of rise of democratic institutions, especially French Revolution. P/NP or letter grading.


127C. Cultural and Intellectual History of Modern Europe, 19th Century. (4) (Same as History M122E.) Lecture, three hours; discussion, one hour (when scheduled). Discussion of climates of mind, aesthetic and cultural change, and climate of opinion. Educational, moral, and religious attitudes; art, thought, and manners in time of historical events and social changes.

128A-C128B-C128C. History of Photography. (4–4) Concurrently scheduled with courses C228A-C228B-C228C. P/NP or letter grading. C128A. 1839 to 1910. Lecture, three hours; discussion, one hour. History of photography in 19th century, with special attention to photography’s entrance into project of avant-garde and its role in formation of postmodernist art. Concurrently scheduled with course C228A. P/NP or letter grading.

C128B. 1910 to Present. Lecture, three hours; discussion, one hour. History of photography in 20th century, including both aesthetically ambitious and popular art. Concurrently scheduled with course C228B. P/NP or letter grading.

130. Selected Topics in Modern Art. (4) Lecture, three hours. Required: course 23. Changing topics in modern art (post-1780) that reflect interests of individual regular and/or visiting faculty members. May be repeated once for credit. P/NP or letter grading.

131A. Contemporary Art, 1940s to 1950s. (4) Lecture, three hours. Required: course 23. Study of major artistic and cultural trends following World War II in U.S. and Europe, covering mid-century to pop art. Concurrently scheduled with course C231A. P/NP or letter grading.


131C. Contemporary Art, 1980s to 1990s. (4) Lecture, three hours; discussion, one hour. Required: course 23. Study of politics of representation at end of century, covering dominant strategies and trends in postmodernist art. Concurrently scheduled with course C231C. P/NP or letter grading.

132. Selected Topics in Contemporary Art. (4) Lecture, three hours. Required: course 23. Changing topics in contemporary art (post-1945) that reflect interests of individual regular and/or visiting faculty members. May be repeated once for credit. P/NP or letter grading.

C133A. American Art before Civil War. (4) Lecture, three hours. Painting, sculpture, and architecture in U.S. from Colonial period through Civil War. Concurrently scheduled with course C233A. P/NP or letter grading.

C133B. American Art in Gilded Age, 1860 to 1900. (4) Lecture, three hours. Required: course 23. Art and architecture in U.S. from Civil War to turn of century. Concurrently scheduled with course C233B. P/NP or letter grading.

C133C. American Art, 1900 to 1945. (4) Lecture, three hours. Painting, sculpture, and architecture in U.S. from 1900 to 1945. Concurrently scheduled with course C233C. P/NP or letter grading.

133D. Architecture in U.S. (4) Lecture, three hours; discussion, one hour. Introduction to architecture built in U.S. over last 5,000 years. Architecture as vehicle for political and cultural authority, citizenship, ethnic and social identity; its role in defining place and our relationship to natural environment and as vehicle for assertion of human control over natural world; its place in world of work and commerce; and its status as professional and aesthetic pursuit. P/NP or letter grading.

133E. American Houses. (4) Lecture, three hours. Examination of houses we occupy and to understand how they relate to changing notions of American architecture. P/NP or letter grading.
C145A. Architecture and Urbanism in Africa. (4) Lecture, three hours. Survey of African built environment at various moments and in different places from about 200 CE to present, with emphasis on cultural, social, and historical contexts of architecture, gender, and race, and contemporary African cities. Concurrently scheduled with course C245A. P/NP or letter grading.

C145B. Contemporary Arts of Africa. (4) Lecture, three hours; discussion, one hour (when scheduled). Survey of the arts of contemporary Africa, from pre-colonial to post-independence, with special emphasis on changing meaning of art object, status of African artist, global reception of contemporary African art, and distinct conditions of contemporary African art. Concurrently scheduled with course C245B. P/NP or letter grading.

C146A. Selected Topics in African American Art. (4) Lecture, three hours. Variable topics in African American art that reflect interests of individual regular and/or visiting faculty members. May be repeated twice for credit. Concurrently scheduled with course C236A. P/NP or letter grading.

137. Arts of Native North America. (4) Lecture, three hours. Survey of painting, sculpture, and other arts from Native American, Caribbean and Southwestern U.S. Concurrently scheduled with course C236B. P/NP or letter grading.

CM139A. Maya Art and Architecture. (4) Formerly numbered C139A. (Same as Chicano and Chicana Studies M137.) Lecture, three hours. Requisite: course 27. Study of the archaeology and history of Maya-speaking cultures of southern Mesoamerica from circa 200 BC to Conquest, with particular emphasis on history and iconography. Concurrently scheduled with course C239A. P/NP or letter grading.

C139B. Aztec Art and Architecture. (4) Lecture, three hours. Requisite: course 27. Painting, sculpture, architecture, and other arts of Nahautli-speaking peoples of central Mexico, with emphasis on their social and historical context and major scholarly debates. Concurrently scheduled with course C239B. P/NP or letter grading.

C140. Selected Topics in Arts of Indigenous Americans. (4) Lecture, three hours. Variable topics in artistic production of Native people across America that reflect interests of individual regular and/or visiting faculty members. May be repeated twice for credit. Concurrently scheduled with course C240A. P/NP or letter grading.

CM141. Colonial Latin American Art. (4) Formerly numbered C141. (Same as Chicano and Chicana Studies M187B.) Lecture, three hours; discussion, one hour (when scheduled). Art and architecture of colonial Americas from 16th to 18th century. Concurrently scheduled with course C241. P/NP or letter grading.

C142A. Mexican Art in Modern Age. (4) Lecture, three hours. Mexican art of 19th and 20th centuries, from foundation of academy in 1785 to present day. Study of art and revolution, muralism, surrealism, indigenism, postcolonialism, and postmodernism in painting, sculpture, prints, photography, and architecture. Concurrently scheduled with course C242A. P/NP or letter grading.

C142B. Latin American Art of 20th Century. (4) Lecture, three hours; discussion, one hour (when scheduled). Mainstream modern and contemporary art and architecture of selected Latin American countries, including both modernist and postmodernist forms, considered in context of social and political concerns, both national and international. Concurrently scheduled with course C242B. P/NP or letter grading.

CM143. Selected Topics in Latin American Art. (4) Lecture, three hours. Variable topics in Latin American art that reflect interests of individual regular and/or visiting faculty members. May be repeated twice for credit. Concurrently scheduled with course C243A. P/NP or letter grading.

C160. Art and Empire. (4) Lecture; three hours discussion, one hour (when scheduled). Examination of relationship between art and imperial ideologies and introduction to current issues in colonial studies and postcolonial criticism. Concurrently scheduled with course C270A. P/NP or letter grading.

C161. Cities in History. (4) Lecture, three hours: discussion, one hour. Examination of history of cities worldwide, locating cities in their aesthetic, social, cultural, and symbolic contexts. History of cities from origins of urban course, present, with focus on recent centuries. P/NP or letter grading.

C169. Selected Topics in Architectural History. (4) Lecture, three hours. Variable topics in architectural history that interest of individual research and visiting faculty members. May be repeated twice for credit. Concurrently scheduled with course C269. P/NP or letter grading.

C170A. Museum Studies. (4) Lecture, three hours: discussion, one hour (when scheduled). Introduction to museology as critical practice, with emphasis on history and theory of museums and impact of culture and society on current museum theory and practice. Concurrently scheduled with course C270A. P/NP or letter grading.

C170B. Museum Studies Practicum. (2 to 4) Lecture, three hours. On-site examination and discussion of selected artworks, exhibitions, and associated published and distributed materials, and of museum and gallery institutions, practices, and policies. Concurrently scheduled with course C270B. Letter grading.

C171. Selected Topics in Museum Studies. (4) Seminar, variable topics. Topics in museum studies that reflect interests of individual regular and/or visiting faculty members. May be repeated for credit with topic change. Concurrently scheduled with course C270A. P/NP or letter grading.

C172A. Preservation of Art. (4) Lecture, three hours. Designed for Anthropology and Art History majors and other juniors/seniors. Introduction to preservation of cultural heritage materials, including what should be preserved and why, as well as who should be involved in decision-making process. Discussion of issues of preservation and restoration of these cultural heritage materials both in museum and outdoor environment contexts. Materials and techniques used to make cultural heritage materials, in relation to preservation efforts needed to prevent decay and loss. Introduction to examples of preservation related to sites, buildings, collections. Ethical and contextual aspects with reference to changing values, illustrating how cultural materials may have been treated differently according to those values. Concurrently scheduled with course C272A. P/NP or letter grading.

C172B. Art: Fakes, Forgeries, and Authenticity. (4) Lecture, three hours. Examination of concepts of authenticity, originality, fakes, and forgeries in art. Overview of problems inherent in concept of authenticity and description of many examples of problems related to this concept in series of discussions based on objects from art history collections. Introduction to subject of fakes and account of three different areas of connoisseurship that are essential component of production, study, and scientific examination of fakes. Nature of art connoisseurship, on many examples of Parthian art. Renaissance and earlier panel paintings, as well as antiquities and traditional African arts. Background of art restoration and art conservation discussed in relation to authenticity in art historical studies. Specific technical tools that form basis of another kind of connoisseurship described in terms of dating techniques that can be applied directly to works of art and technical methods which material constituents reveal and works of art are studied. Concurrently scheduled with course C272C. P/NP or letter grading.

M179. Cultural Heritage and Identity Representation: Creating Fowler and Virtual Exhibit. (4) Same as Anthropology 179. Lecture, three hours discussion, one hour. Exploration of what it takes to run museum and create exhibit. Introduction to different types of museum work, ranging from collecting and curation, to research, conservation, presentation, visitor experience, and management. Students jointly create exhibit based on Fowler Museum collection. Students research and discuss context and different stakeholders that relate to material under consideration. Consideration of narrative exhibit and how objects and their arrangement convey deliberate or accidental meaning, as well as original context of each object. Focus on people behind objects, technologies, or material characteristics. P/NP or letter grading.

185. Undergraduate Seminar. (4) Seminar; three hours. Variable topics under guidance of faculty mentor. In-depth study in regularly scheduled meetings with faculty mentor to discuss selected USIE seminar topic, conduct preparatory research, and begin preperation of syllabus. Individual contract with faculty mentor required. May not be repeated. Letter grading.

188A. Individual Study for USIE Facilitators. (1) Tutorial, to be arranged. Enforced corequisite: Honors Collegium 101E. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor to finalize the course syllabus. Individual contract with faculty mentor required. May not be repeated. Letter grading.

188B. Individual Study for USIE Facilitators. (1) Tutorial, to be arranged. Enforced prerequisite: courses 188SA, 188SB, or 188SC. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor while facilitating USIE 88S course. Individual contract with faculty mentor required. May not be repeated. Letter grading.

188C. Individual Study for USIE Facilitators. (1) Tutorial, to be arranged. Enforced prerequisite: course 188SB. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor while facilitating USIE 88S course. Individual contract with faculty mentor required. May not be repeated. Letter grading.

189. Advanced Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to undergraduate lecture course. Exploration of topics in greater depth through selected readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

189HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to upper-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through selected readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. May not be repeated. Letter grading.

195. Museum Studies Internship. (3) Tutorial, three hours: fieldwork, four hours. Required: course C170A. Limited to junior/senior Art History majors. Internship in supervised setting at participating host museum at UCLA or in greater Los Angeles area. Participation in ongoing museum projects and operations, with specific work to be determined by host institution in consultation with faculty mentor. Curatorial, educational, communications, public relations, and development work may be included, as well as assistance to public programs and related events. Students meet on regular basis with faculty mentor and departmental representative to report on their experience. May be repeated for credit. Individual contract with supervising faculty mentor required. P/NP grading.

196. Research Apprenticeship in Art History. (2 to 4) Tutorial, three hours per week per unit. Limited to juniors/seniors. Entry-level research apprenticeship for students. Enforced corequisite: Honors Collegium 101E. Limited to junior/senior Art History majors. Internship in supervised setting at participating host museum at UCLA or in greater Los Angeles area. Participation in ongoing museum projects and operations, with specific work to be determined by host institution in consultation with faculty mentor while facilitating USIE 88S course. Individual contract with faculty mentor required. May not be repeated. Letter grading.

197. Individual Capstone Studies. (2 to 4) Tutorial, two hours. Limited to departmental junior/senior majors and other students by consent of faculty supervisor. Instructor meets with student to design capstone project so it conforms to departmental capstone project guidelines. Must be taken in conjunction and concurrently with one upper-division departmental course. Individual contract required. P/NP or letter grading.

198A-198B. Honors Research in Art History. (4-4) Tutorial, to be arranged. Preparation: completion of research on four upper-division courses with 3.5 departmental grade-point average and overall 3.0 grade-point average. Limited to junior/senior Art History and History/Art History majors. Two-term independent research project. May be repeated for credit. Individual contract required. P/NP or letter grading.

199. Directed Research in Art History. (2 to 4) Tutorial, two hours. Limited to juniors/seniors. Supervised individual research or investigation under guidance of faculty mentor. Culuminating paper or project required. May be repeated for credit. Individual contract required. P/NP or letter grading.

Graduate Courses

200. Art Historical Theories and Methodologies. (4) Seminar, three hours. Critical examination of history of discipline of art history, with studies of various theoretical, critical, and methodological approaches to visual arts from antiquity to present. May be repeated for credit with consent of adviser. S/U or letter grading.

201. Topics in Historiography of Art History. (4) Seminar, three hours. Critical examination of historiographical traditions of specific area within discipline of art history, concentrating on particular time periods, geographical areas, artistic traditions, or works of one or more authors. May be repeated for credit with consent of adviser. S/U or letter grading.

202. Topics in Theory and Criticism in Art History. (4) Seminar, three hours. Focused studies of various theoretical and critical traditions within art history, concentrating on particular issues, authors, or methodologies either within or across historical and cultural areas. May be repeated for credit with consent of adviser. S/U or letter grading.

203. Topics in Architectural History and Theory. (4) Seminar, three hours. Focused studies of various theoretical and critical traditions within architectural history, concentrating on particular issues, authors, or methodologies either within or across historical, geographic, and cultural areas. May be repeated for credit with consent of adviser. S/U or letter grading.


210. Egyptian Art. (4) Seminar, two hours. Requisites: courses M110A, M110B, M111. Art in Egypt during Late Period and Greco-Roman. Students should be prepared to read and comprehend Greek and Latin. May be repeated for credit with consent of adviser. S/U or letter grading.

212A. Topics in Aegean Art. (4) Seminar, two hours. Requisites: courses M111, M112A. Art and architecture of Aegean Bronze Age (3000 to 1000 BC). Monuments or theoretical problems related to art and culture of Crete, Greece, Cyprus, and Anatolia. May be repeated for credit with consent of adviser. S/U or letter grading.

212B. Topics in Classical Art. (4) Seminar, two to three hours. Studies of Parthian art. Site-by-site study of sites Near East (Afghanistan, Turkey, and Syria) during period of Greek and Parthian control. May be repeated for credit with consent of adviser. S/U or letter grading.
C212G. Classical Art. (4) Seminar, two hours. Studies in Greco-Roman art and archaeology. Studies of specific periods, sites, or artistic media. May be repeated for credit with consent of adviser. S/U or letter grading.

C214D. Selected Topics in Ancient Art. (4) Lecture, three hours. Variable topics in ancient art that reflect interests of individual regular and/or visiting faculty members. May be repeated twice for credit. Concurrently scheduled with course C114D. S/U or letter grading.

C215A. Late Antique Art and Architecture. (4) Lecture, three hours. Art and architecture of late Roman Empire and early Christian world. Concurrently scheduled with course CM115A. S/U or letter grading.

C215B. Early Medieval Art and Architecture. (4) Lecture, three hours. Prerequisite: course 21. Art and architecture of Western Europe from Migration period until AD 1000. Concurrently scheduled with course C115B. S/U or letter grading.


C216A. Middle Byzantine Art and Architecture. (4) Lecture, three hours. Emphasis on art and architecture of the Eastern Roman or Byzantine Empire. Concurrently scheduled with course C116A. S/U or letter grading.

C216B. Late Byzantine Art and Architecture. (4) Lecture, three hours. Prerequisite and development of Byzantine art from Iconoclastic controversy to 1204. Concurrently scheduled with course C116B. S/U or letter grading.

C217A. Medieval Archaeology. (4) Lecture, three hours. Study of material culture, incuding iconography, and history of city of Paris to circa 1500. Concurrently scheduled with course C117A. S/U or letter grading.

C217B. Selected Topics in Medieval Art. (4) Lecture, three hours. Variable topics in medieval art that reflect interests of individual regular and/or visiting faculty members. May be repeated twice for credit. Concurrently scheduled with course C117B. S/U or letter grading.

C217C. Medieval Art. (4) Seminar, two hours. Studies in selected topics in Byzantine and European medieval art. May be repeated for credit with consent of adviser. S/U or letter grading.

C217D. Byzantine Art, Architecture, and Archaeology. (4) Seminar, two hours. Topics in Byzantine art and architecture. May be repeated for credit with consent of adviser. S/U or letter grading.

C218. Selected Topics in African Art. (4) Lecture, three hours. Variable topics in African art that reflect interests of individual regular and/or visiting faculty members. May be repeated twice for credit. Concurrently scheduled with course C118C. S/U or letter grading.

C220A. Selected Topics in Islamic Art. (4) Lecture, three hours. Variable topics in Islamic art and architecture that reflect interests of individual regular and/or visiting faculty members. May be repeated twice for credit. Concurrently scheduled with course C120. S/U or letter grading.

C220B. Advanced Studies in Islamic Art. (4) Seminar, three hours. Prerequisite: knowledge of Italian. Study of various aspects of Leonardo's theoretical approach to art in terms of sources and impact on followers. May be repeated for credit with consent of adviser. S/U or letter grading.

C222A. Art and Architecture of the Aztecs. (4) Seminar, two hours. Preparation: knowledge of Italian. Study of various aspects of Leonardo's theoretical approach to art in terms of sources and impact on followers. May be repeated for credit with consent of adviser. S/U or letter grading.

C231A. Contemporary Art, 1940s to 1950s. (4) Lecture, three hours. Prerequisite: course 23. Study of major artistic and cultural trends during World War II in U.S. and Europe, covering abstract expressionism to pop art. Concurrently scheduled with course C131A. S/U or letter grading.


C231C. Contemporary Art, 1980s to 1990s. (4) Lecture, three hours; discussion, one hour. Prerequisite: course 23. Study of points of inflection at end of century, covering dominant strategies and trends in postmodernist art. Concurrently scheduled with course C131C. S/U or letter grading.

C232. Contemporary Art. (4) Seminar, three hours. Selected topics in contemporary art, criticism, and theory. S/U or letter grading.

C233A. African American Art before Civil War. (4) Lecture, three hours. Painting, sculpture, and architecture in U.S. from Colonial period through Civil War. Concurrently scheduled with course C133A. S/U or letter grading.

C233B. African American Art in Gilded Age, 1860 to 1900. (4) Lecture, three hours. Painting, sculpture, and architecture in U.S. from Civil War to turn of century. Concurrently scheduled with course C133B. S/U or letter grading.

C233C. African American Art, 1900 to 1945. (4) Lecture, three hours. Painting, sculpture, and photography in U.S. from 1900 to 1945. Concurrently scheduled with course C133C. S/U or letter grading.

C234. American Art. (4) Seminar, two hours. Prerequisite: course C233A or C233B or C233C. Depending on topic. Topics in American art from Colonial period to present. Discussion of weekly readings, student oral presentations, and papers. May be repeated for credit with consent of adviser. S/U or letter grading.

CM235A. African American Art. (4) (Same as African American Studies M256.) Lecture, three hours. Detailed inquiry into work to circa 1900 of African American artists whose works provide insightful and critical commentary about major features of American life and society. Concurrently scheduled with course CM135A. S/U or letter grading.

CM235B. African American Art, 1900 to 1963. (4) (Same as African American Studies CM235B.) Lecture, three hours. Detailed inquiry into work of African American artists from U.S. involvement in 1917-1918 March on Washington within context of social, political, and cultural engagement, as well as in codification of modern black life in U.S. Concurrently scheduled with course CM135B. S/U or letter grading.

CM236. Topics in African American Art. (4) (Same as African American Studies M256.) Seminar, three hours. Prerequisite: course CM235A or CM235B. Topics in African American art from 18th century to present. May be repeated for credit with consent of graduate adviser. S/U or letter grading.

C236A. Selected Topics in African American Art. (4) Lecture, three hours. Variable topics in African American art that reflect interests of individual regular and/or visiting faculty members. May be repeated twice for credit. Concurrently scheduled with course C136A. S/U or letter grading.


C239A. Maya Art and Architecture. (4) Lecture, three hours. Prerequisite: course 27. Study of art of selected Maya-speaking peoples of Mesoamerica from circa 2000 BC to Conquest, with particular emphasis on history and iconography. Concurrently scheduled with course CM139A. S/U or letter grading.

C239B. Aztec Art and Architecture. (4) Lecture, three hours. Prerequisite: course 27. Painting, sculpture, architecture, and other arts of Nahua-speaking peoples of central Mexico, with emphasis on their social
C246B. Art and Material Culture of Early Imperial China, 210 BC to AD 906. (4) Lecture, three hours. Palaces and tombs of early imperial dynasties, impact of Buddhist art (cave temples), rise of new media and technologies. Concurrently scheduled with course C148B. S/U or letter grading.

C248C. Art and Material Culture of Late Imperial China, 906 to 1911. (4) Lecture, three hours. Secular and religious (Buddhist and Taoist) architecture, painting, sculpture, and various luxury industries (lacquer, porcelain, textiles, jade, bronze, furniture, wood and bamboo carving, etc.). Concurrently scheduled with course C148C. S/U or letter grading.


C248E. Art in Modern China. (4) Lecture, three hours. Concentrated look at major schools and masters of Chinese art from turn of 20th century to present, with focus on interaction with foreign cultures and issues of self-identity, assimilation, modernity, tradition, and continuity. Consideration of recent developments in Chinese art. Concurrently scheduled with course C148E. S/U or letter grading.

C248F. Advanced Chinese Painting. (4) Lecture, three hours. Examination of classical painting of Imperial China through theory and practice. Concurrently scheduled with course C148F. S/U or letter grading.

C248G. Gardens in Chinese Art and Culture. (4) Lecture, three hours. Overview of practice, theory, and representation of Chinese gardens in their historical, philosophical, artistic, social, and cultural contexts, through literary writings, paintings, and aspects of material culture. Concurrently scheduled with course C148G. S/U or letter grading.

C249A. Selected Topics in Chinese Art. (4) Lecture, three hours. Variable topics in Chinese art that reflect interests of individual regular and/or visiting faculty members. May be repeated twice for credit. Concurrently scheduled with course C149A. S/U or letter grading.

249B. Chinese Art. (4) Seminar, three hours. Advanced studies in secular and religious artistic traditions of China. May be repeated for credit with consent of adviser. S/U or letter grading.

C251A. Selected Topics in Japanese Art. (4) Lecture, three hours. Variable topics in Japanese art that reflect interests of individual regular and/or visiting faculty members. May be repeated twice for credit. Concurrently scheduled with course C151A. S/U or letter grading.

C251B. Japanese Art. (4) Lecture, three hours. Advanced studies in secular and religious artistic traditions of Japan. May be repeated for credit with consent of adviser. S/U or letter grading.

C252A. History of Korean Painting. (4) Lecture, three hours. Korean painting history from Three Kingdoms period to 19th century, examined within cultural and sociopolitical contexts. Special emphasis on diversity of styles and schools, including the Choson dynasty (1392 to 1910). Concurrently scheduled with course C152A. S/U or letter grading.

C252B. History of Korean Ceramics. (4) Lecture, three hours. History of Korean ceramics from Neolithic period to 19th century, with special emphasis on technological and stylistic developments. Concurrently scheduled with course C152C. S/U or letter grading.

C252C. History of Korean Buddhist Art. (4) Lecture, three hours. History of Korean Buddhist art from Three Kingdoms period to Choson dynasty, with special emphasis on Buddhist iconography and relationship between sculpture, painting, and architecture. Concurrently scheduled with course C152D. S/U or letter grading.

C253A. Selected Topics in Korean Art. (4) Lecture, three hours. Variable topics in Korean art that reflect interests of individual regular and/or visiting faculty members. May be repeated twice for credit. Concurrently scheduled with course C153. S/U or letter grading.

C253B. Selected Topics in Korean Art. (4) Lecture, three hours. Studies of Korean art under different art-historical perspectives, methods, and theories. Individual studies, with emphasis on presentation. Group studies may be linked to exhibition projects. May be repeated with consent of instructor. S/U or letter grading.

C254A. Advanced Indian Art. (4) Lecture, three hours. Requisite: course 154A. Study in Indian sculpture and architecture. Concurrently scheduled with course C154C. S/U or letter grading.

254B. Modern and Contemporary South Asian Art. (4) Lecture, three hours. Topics in modern and contemporary South Asian art from 1900 to present. Letter grading.

C255A. Selected Topics in South and Southeast Asian Art. (4) Lecture, three hours. Variable topics in South and Southeast Asian art that reflect interests of individual regular and/or visiting faculty members. May be repeated twice for credit. Concurrently scheduled with course C155. S/U or letter grading.

C255B. Indian Art. (4) Seminar, two hours. Advanced studies in secular and religious artistic traditions of India. May be repeated for credit with consent of adviser. S/U or letter grading.

C256A. Selected Topics in Asian Arts and Architecture. (4) Lecture, three hours. Variable topics in Asian arts and architecture that reflect interests of individual regular and/or visiting faculty members. May be repeated twice for credit. Concurrently scheduled with course C156A. S/U or letter grading.

C256B. Topics in Asian Archaeology. (4) (Same as Anthropology 251A) Seminar, three hours. Designed for graduate students. Topics may include identification of ethnic groups in archaeology, archaeology of religion, ethnoarchaeological reflections of commerce and trade and their influence on social development, archaology of language dispersal, cultural contact and nature of cultural influence. S/U or letter grading.

C258. Fieldwork in Archaeology. (2 to 8) Fieldwork, to be arranged. Participation in archaeological excavations or other archaeological research under supervision of staff. May be repeated for credit with consent of adviser. S/U or letter grading.

C258A. Art and Empire. (4) Lecture, three hours; discussion, one hour (when scheduled). Examination of relationship between art and imperial ideologies and sociopolitical contexts. Special emphasis on visual culture and sociopolitical contexts. Special emphasis on visual culture. Concurrently scheduled with course 258B. S/U or letter grading.

C258B. Topics in Asian Archaeology. (4) (Same as Anthropology 251A) Seminar, three hours. Designed for graduate students. Topics may include identification of ethnic groups in archaeology, archaeology of religion, ethnoarchaeological reflections of commerce and trade and their influence on social development, archaology of language dispersal, cultural contact and nature of cultural influence. S/U or letter grading.


C269. Selected Topics in Architectural History. (4) Lecture, three hours. Variable topics in architectural history that reflect interests of individual regular and/or visiting faculty members. May be repeated twice for credit. Concurrently scheduled with course C169. S/U or letter grading.

C270A. Museum Studies. (4) Lecture, three hours; discussion, one hour (when scheduled). Introduction to museology as critical practice, with emphasis on history and theory of museums and impact of culture and society on current museum theory and practice. Concurrently scheduled with course C170A. S/U or letter grading.

C270B. Museum Studies Practicum. (2 to 4) Lecture, three hours. On-site examination and discussion of selected artworks, exhibitions, and associated publications and distributed materials of museums and museum galleries, institutions, practices, and policies. Concurrently scheduled with course C170B. Letter grading.

C271. Selected Topics in Museum Studies. (4) Seminar, three hours. Variable topics in museum studies that reflect interests of individual regular and/or visiting faculty members. May be repeated for credit with topic change. Concurrently scheduled with course C171. S/U or letter grading.
ARTS AND ARCHITECTURE
School of the Arts and Architecture
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School of the Arts and Architecture
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School e-mail

Scope and Objectives
There is no major in arts and architecture; however, the following courses are part of the schoolwide curriculum.

Arts and Architecture

Lower-Division Courses
10. Arts Encounters: Exploring Arts Literacy in 21st Century. (5)
19. Fiat Lux Freshman Seminars. (1)
501. Cooperative Program. (2 to 8)
508. Research for and Preparation of MA Thesis. (2 to 12)
509. Research for and Preparation of PhD Disser-
tation. (2 to 12)

Upper-Division Courses
100. Selected Topics in Arts. (4) Lecture, three to six hours; discussion and/or laboratory, two to three hours (when scheduled); outside study, six to nine hours. Selected topics in arts explored through variety of approaches that may include projects, readings, studio work, performance, discussion, research papers, and oral presentations. Topics announced in advance. May be repeated for maximum of 8 units. P/NP or letter grading.

189. Advanced Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to undergraduate lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

Asian American Studies

College of Letters and Science
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Los Angeles, CA 90095-7225

Asian American Studies
310-267-5592

Chair

Professors
Mitchell J. Chang, PhD
King-Kok Cheung, PhD
C. Cindy Fan, PhD
Gilbert C. Gee, PhD
Grace Kyungwon Hong, PhD
Jerry Kang, JD (Korea Times-Hankook Ibd Professor of Korean American Studies and Law)
Vinay Lal, PhD
Anna S. Lau, PhD
Jinqi Ling, PhD
Purnima Mankekar, PhD
Valerie J. Matsunoto, PhD (George and Sakaye Aratani Professor of Japanese American Incarceration, Redress, and Community)
Vinit Mukhiya, PhD
Shu-mei Shih, PhD
Renee E. Tajima-Peña, BA (UCLA Alumni and Friends of Japanese Ancestry Professor of Japanese American Studies)
Karen N. Umemoto, PhD
David K. Yoo, PhD
Min Zhou, PhD (Walter and Shirley Wang Professor of U.S./China Relations and Communications)

Associate Professors
Victor Bascara, PhD
Lucy M. Burns, PhD
Keith Lujan Carnacho, PhD
Michelle L. Caswell, PhD
Jennifer J. Chun, PhD
Natalie R. Masuoka, PhD
Allee Moon, PhD
Thu-Huong Nguyen-vo, PhD
Robert Casas Romero, JD, PhD

Assistant Professors
Jolie Chea, PhD
Undergraduate Study

The Asian American Studies major is a designated capstone major. Students are required to complete either a community-based applied team research project or an independent scholarly or creative expression project. Those who select the community-based project are expected to use their scholarly knowledge and analytical skills to examine problems facing Asian and Pacific Islander American populations, think creatively and innovatively about evidence-based solutions, and to produce reports that benefit community stakeholders. Those who select to design and complete an independent scholarly or creative expression project pursue a key idea or theme of personal interest that is related to their prior coursework and to the experiences and realities of Asian and Pacific Islander Americans. Through their capstone work, all students are expected to demonstrate their skills in using and synthesizing knowledge gained in disparate courses and communicating effectively their findings and conclusions in a final paper, report, or project and in a public forum.

Asian American Studies BA

Capstone Major

The BA program in Asian American Studies provides a general introduction for students who anticipate advanced work at the graduate level or careers in research, public service, and community work related to Asian and Pacific Islander Americans. An overall grade-point average of 2.0 or better is required for admission to the major.

Learning Outcomes

The Asian American Studies major has the following learning outcomes:

- Skills in and critical appreciation for theoretical, multidisciplinary, and practical/applied dimensions of scholarly activities as applied to historical and contemporary studies of subject populations
- Skills in and critical appreciation for textual, literary, archival, visual, creative, and fieldwork-based qualitative and quantitative research, including ways of identifying and accessing diverse resources
- Skills in and critical appreciation for comparative, relational, and intersectional understanding of group formation and dynamics, group differences and commonality, and individual identity within groups
- Skills in and critical appreciation for individual and collective agency, civic and political engagement, and engaged scholarship's role in social change
- Skills in and critical appreciation for historical contextualization including approaches to the rise of new groups, identities, and social movements in global, national, local, and other frameworks
- Skills in and appreciation for collective formations against forms of injustice, such as subordination and inequality

Preparation for the Major

Required: Two courses from Asian American Studies 10 or 10W, 20 or 20W, 30 or 30W, 40 or 40W, 50 or 50W.

Transfer Students

Transfer applicants to the Asian American Studies major with 90 or more units must complete the following introductory course if possible prior to admission to UCLA: one lower-division Asian American studies course or one course that focuses on Asian Americans.

Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

The Major


No more than 12 graded units of Asian American Studies 195, 197, 198, and 199 may be applied toward the major. Courses 192 and 196 may not be applied toward the major.

Each course applied toward the major must be taken for a letter grade (courses offered only on a P/NP grading basis are acceptable), each must be at least 4 units, and students must have an overall grade-point average of 2.0 or better.

Honors Program

Through the Asian American Studies honors program, Asian American Studies majors undertake a year-long thesis or its equivalent with the guidance and supervision of a faculty member. Successful completion of the departmental honors program is indicated on the transcript. For additional information about the departmental honors program, contact the undergraduate academic adviser.

Admission

The honors program is open to junior and senior Asian American Studies majors who have (1) 90 or more total units, (2) a grade-point average of 3.5 or better in upper-division Asian American Studies courses and an overall cumulative GPA of 3.0 or better, and (3) completed two lower-division Asian American Studies courses.

Requirements

Honors students must take the Asian American Studies 198A, 198B, and 198C sequence in which they write a thesis or its equivalent under the direction of a faculty member.
Asian American Studies Minor

The Asian American Studies minor is designed for students who wish to gain understanding of and competence in Asian American Studies.

To enter the minor, students must have an overall grade-point average of 2.0 or better, have completed two lower-division Asian American Studies courses, and file a petition with the department under-graduate academic adviser, 3339 Rolfe Hall.

Required Lower-Division Courses (10 units): Two courses from Asian American Studies 10 or 10W, 20 or 20W, 30 or 30W, 40 or 40W, 50 or 50W, and one course from Filipino Studies 152, 155, Geography 145.

A minimum of 20 units applied toward the minor requirement must be in addition to units applied toward major requirements or another minor.

Each minor course must be taken for a letter grade, and students must have an overall grade-point average of 2.0 or better in the minor. Successful completion of the minor is indicated on the transcript and diploma.

Graduate Study

Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Division website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Graduate Degrees

The Department of Asian American Studies offers the Master of Arts (MA) degree in Asian American Studies. Two concurrent degree programs (Asian American Studies MA/Public Health MPH and Asian American Studies MA/Social Welfare MSW) are also offered.

Asian American Studies Lower-Division Courses

10. History of Asian Americans. (5) Lecture, three hours; discussion, one hour. Not open for credit to students with credit for course 10W. Multidisciplinary examination of history of Asians and Pacific Islanders in U.S. P/NP or letter grading.

10W. History of Asian Americans. (5) Lecture, three hours; discussion, two hours. Enforced requisite: English Composition 3 or 3H or English as a Second Language 36. Not open for credit to students with credit for course 10. Multidisciplinary examination of history of Asians and Pacific Islanders in U.S. Satisfies Writing II requirement. Letter grading.

M10. Leadership and Student-Initiated Retention. (2) Same as African American Studies M18, Asian American Studies M18, and Chicana and Chicano Studies M18.) Seminar, two hours. Limited to freshmen/sophomores/first-year transfer students. Not open for credit to students with credit for course M18. Exploration of issues in retention at UCLA through lens of student-initiated and student-run programs, efforts, activities, and services. Focus on populations with historically low graduation rates targeted by Campus Retention Committee. May not be applied toward departmental major or minor elective requirements. May be repeated once for credit. Letter grading.

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

20. Contemporary Asian American Communities. (3) Lecture, three hours; discussion, one hour. Multidisciplinary introduction to contemporary Asian American populations and communities in U.S. Topics include contemporary immigration, demographic trends, sociocultural, economic, and political issues, and interethnic relations. P/NP or letter grading.

20W. Contemporary Asian American Communities. (5) Lecture, three hours; discussion, two hours. Requires: English Composition 3. Not open for credit to students with credit for course 20. Multidisciplinary introduction to contemporary Asian American populations and communities in U.S. Topics include contemporary immigration, demographic trends, sociocultural, economic, and political issues, and interethnic relations. Satisfies Writing II requirement. Letter grading.

30. Asian American Literature and Culture. (5) Lecture, three hours; discussion, one hour. Not open for credit to students with credit for course 30W. Multidisciplinary introduction to Asian American literature and cultural production, with examination of some combination of novels, short stories, poetry, drama, performance, film, visual art, music, and/or new media. P/ NP or letter grading.

30W. Asian American Literature and Culture. (5) Lecture, three hours; discussion, two hours. Enforced requisite: English Composition 3 or 3H or English as a Second Language 36. Not open for credit to students with credit for course 30. Multidisciplinary introduction to Asian American literature and cultural production, with examination of some combination of novels, short stories, poetry, drama, performance, film, visual art, music, and/or new media. Satisfies Writing II requirement. Letter grading.


50. Asian American Women. (5) Lecture, three hours; discussion, one hour. Overview of history of feminist theory and intersection of gender, class, race/ ethnicity from cross-cultural perspectives, with focus on Asian American women's lived experiences in U.S. Topics may include Asian American women's roles in family life, work, community organization, social change, and cultural creativity. Examination of broader structural forces that affect women in society, such as racializa- tion, immigration, globalization, colonialism and postcolonialism, and social movements. P/NP or letter grading.

50W. Asian American Women. (5) Lecture, three hours; discussion, two hours. Requires: English Composition 3. Not open for credit to students with credit for
Upper-Division Courses

103. Social Science Research Methods. (4) Lecture, three hours; discussion, one hour. Designed for juniors/seniors. Introduction to fundamentals of conducting social research on Asian Americans, providing experience in using some research methods and exercises in evaluating nature and quality of scientific research on Asian American issues. P/NP or letter grading.

104A. Field Studies Methods in Asian Pacific Communities. (4) Lecture, three hours. Preparation: one course from 101 through 191F. Development of community profiles on Asian Pacific American communities, using various field studies techniques of data collection. P/NP or letter grading.

104B. Special Internships in Asian Pacific Communities. (4) Fieldwork, eight hours minimum. Requisite: course 104A or Asian American studies course (except 199). Integrates academic and empirical work by providing students challenge of performing public service and community work in Asian Pacific American communities, and of bringing their ongoing internship experiences back to classroom. May be repeated for credit. P/NP or letter grading.

105. Historical Research Methods. (4) Seminar, three hours. Requisite: course 10. Introduction to methods used to locate and analyze source materials for research on Asian American history. Historians have used a variety of sources that may include archival materials, oral history, material culture, and more. P/NP or letter grading.

107. Scholarly and Creative Communication in Asian American Studies. (4) Formerly numbered 101.) Lecture, two hours. Designed for advanced junior/senior Asian American Studies majors and minors. Examination of alternative modes of expression to effectively reach academic and nonacademic audiences, including written text, visual materials, and performance. Exploration of scholarly works by looking at how narratives are developed, ideas and values are framed, or knowledge is generated and transmitted, through either traditional or electronic mediums. Investigation of discursive and popular forms, stylistic patterns, and communicative practices. Themes and content of research related to course objective may be pursued with guidance from instructor. Sharing and critiquing of other student works in progress. P/NP or letter grading.

108. Policy, Planning, and Community. (4) Same as Urban Planning M108. Lecture, three hours; field laboratory. Project-oriented methods course on conducting needs assessment in Asian American communities. Geographical and cultural factors to be used to define problems and needs. Letter grading.


111. Asian Americans and War. (4) Lecture, three hours. Interdisciplinary examination of role that war has played in history and culture of Asian Americans, drawing on diverse set of materials ranging from Asian American literature, Hollywood movies, and wartime propaganda to political speeches, Supreme Court decisions, and protest culture, to evaluate relationship between Asian American communities and geopolitical conflicts from late-19th century to contemporary period. P/NP or letter grading.

112A. Historical Survey of Asian American Literature. (5) Same as English M102A. Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3 or 3H. Survey of post-1980 Asian American literature that explores key literary and critical issues, such as race and geography, aesthetics and activism, cultural work and immigrant labor, kinship and sexuality, and critical race theory—study of race, and representation, and race and critical race theory. P/NP or letter grading.

112B. Contemporary Asian American Literary Issues and Criticism. (5) Same as English M102B. Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3 or 3H. Examination of several dimensions of Asian American social movements, including grassroots, mass movement, political and social vision, and social and political relevance to current issues. How movement participants linked struggle for change with own personal transformation and growth. P/NP or letter grading.

117. Asian American Personality and Mental Health. (4) Same as Psychology M107.) Lecture, three hours. Enforced requisite: Personality and social dimensions of personality development and mental health among Asian Americans. Topics include culture, family patterns, achievements, stressors, resources, and immigrant and minority group status. P/NP or letter grading.

118. Asian American Religious History. (4) Lecture, four hours. Examination of religion as thematic thread within context of Asian American history, primarily during period before World War II. Basic grounding in early Asian American history through exploration of role of religion in various communities. P/NP or letter grading.

119. Asian American and Pacific Islander Labor Issues. (4) Same as Labor Studies M119.) Lecture, three hours. Examination of historical and contemporary labor issues in Asian and Pacific Islander American communities, with emphasis on role that Asian and Pacific Islander American students can play in supporting labor struggles of low-income immigrants. P/NP or letter grading.

120. Yellow Peril’s Revenge: Asian American Independent Cinema. (4) Lecture/screenings, three hours. Exploration of relationship between content, social context, and production processes in independently produced films and digital media by and about Asian American filmmakers, focusing on representation and racism in theatrical features and online content. P/NP or letter grading.

121. Asian American and Pacific Islander Theater. (4) Lecture, four hours. Study of Asian American plays; students required to compose a project paper based on their own experience using lessons learned in class. Explores scene study and acting exercises. P/NP or letter grading.

122A. Indendity, Empire, and Resistance in Pacific Islands. (4) Lecture, three hours. Introduction to indigenous and colonial histories of Pacific Islands. Discussions, film screenings, guest speakers, and reading assignments, with focus on issues of cultural survival, empire, indigenous, migration, resistance, sovereignty, and war. P/NP or letter grading.

122B. Gender and Film in Pacific. (4) Lecture, three hours. Requisite: course 122A. Exploration of rise of film in Pacific Islands during 20th century, with attention to politics of gender, history, and representation, to engage students in textual and visual readings of feature-length films about Pacific. Discussions, film screenings, and guest speakers, with focus on aesthetics, cultural, economic, gendered, historical, and political dimensions of films. P/NP or letter grading.

123. Cultures of/against Empire. (4) Seminar, three hours. Critical concepts and cultural practices linking Asian American studies to study of U.S. cultures of imperialism. Course begins with premise that Asian American studies contribute distinctively to contemporary scholarship on U.S. empire. Examination of political and intellectual coalitions toward which Asian American studies critique builds. Emphasis on works
that approach study of empire through comparative racial formation, postcolonialism, transnationalism, and studies of migration. P/NP or letter grading.

M124. Comparative Racialization and Indigeneity. (4) (Same as African American Studies M124.) Lecture, three hours. Examination of processes and histories of racialization and colonization in U.S. Discourse, film screenings, guest speakers, and reading assignments, with focus on issues of cultural survival, empire, indigeneity, migration, resistance, sovereignty, and war. P/NP or letter grading.


126. Comparative Race and Indigeneity. (4) Seminar, three hours. Preparation: one ethnic studies course. Analysis of race and indigeneity within comparative ethnic studies framework. Examination of how of modernity, colonialism, and Latinx identities are formed in relation to one another in US and its territories. Interrogation of how communities are pitted against each other by structural anti-Indianism, imperialism, racism, and anti-indigeneity—and theorizing of strategies for building solidarity across difference. Intersectional and interdisciplinary approaches to gender, sexuality, and class, with texts from ethnic studies, gender studies, anthropology, sociology, history, cultural studies, and literature. P/NP or letter grading.

M129. Health Issues for Asian Americans and Pacific Islanders: Myth or Model? (4) (Same as Community Health Sciences M140.) Lecture, three hours; fieldwork, one hour. Introductory overview of mental and physical health issues of Asian Americans and Pacific Islanders; identification of gaps in health status indicators and barriers to both care delivery and research for these populations. Letter grading.


M130B. Chinese Immigrant Literature and Film. (4) (Same as Chinese M153 and Comparative Literature M171.) Lecture, three hours; discussion, two hours. Preparation: knowledge of Chinese not required. In-depth look at Chinese immigrant experience by reading literature and watching films. Theories of diaspora, gender, and race to inform thinking and discussion of relevant issues. P/NP or letter grading.

M130C. Chinese Immigration. (4) (Same as Sociology M153.) Lecture, three hours; discussion, one hour. Survey of sociological studies of Chinese immigration, with focus on international context, organizations, and institutions of Chinese America and its interactions with social environment. P/NP or letter grading.


140SL. Power to People: Asian American and Pacific Islander Community-Based Learning. (4) Lecture, two hours; fieldwork, four hours. Enforced requisite: course 10, 10W, 20, 20W, 30, 30W, 40, 40W, 50, or 50W. Service-learning engagement and critically examine community organizing and community-based organizations (CBOs) in Asian American and Pacific Islander communities related to issues such as arts and culture, community health, and applied research. P/NP or letter grading.

141A. Asian American and Pacific Islander Leadership Development Project Part I: Leadership. (4) Lecture, three to four hours. Preparation: first three to five years of in-field experience. First term of two-series term on leadership development, with focus on intentional and practical learning of leadership concepts, models, and skills. In Progress grading (credit is to be given only on completion of course 141B). (Same as Com-African American Studies M164A.)

141B. Asian American and Pacific Islander Leadership Development Project Part II: Field Studies. (4) Lecture, three hours; fieldwork, three hours. Enforced requisite: course 141A. Limited to juniors/seniors. Second term of two-series term on leadership development, with focus on Asian American, Pacific Islander, and other ethnic communities. Examine history, settlement patterns, and experiences of community building and maintenance. P/NP or letter grading.

C142A. Ethnocommunications I: Introduction to Creating Community Media. (4) Seminar, three hours. Strong verbal skills and familiarity with technology required. Introduction to social documentary theory and methodology. Through hands-on production, use of digital video to tell visual stories, reclaim history, and examine social issues related to diverse peoples, cultures, and communities. Viewing of films and interactive media for critique and discussion, guest speakers, basic instruction in use of digital video technology, and group and individual video projects. Concurrently scheduled with course C242A. P/NP or letter grading.


M143A. Fieldwork in Asian American and Pacific Islander Communities. (4) (Same as Anthropology M138Q.) Lecture, three hours; discussion, one hour. Introduction to qualitative research methods and applications of ethnographic techniques, analysis, and reporting. Critical reflection of issues related to identity, migration, multiculturalism, tourism, and indigenous rights. Field excursions and guest lecturers from local community included. Given in Hawai'i. P/NP or letter grading.

143B. Politics of Race, Ethnicity, Migration, and Multiculturalism in Hawai'i. (4) Lecture, three hours; discussion, one hour. Critical examination of historical and contemporary experiences of various people in Hawai'i. Investigation of historical, economic, and political contexts of migration and relations between indigenous peoples, migrants, and existing racial and ethnic groups. P/NP or letter grading.

M143C. Ethnic Identity and Ethnic Relations in Hawai'i. (4) (Same as Anthropology M168Q.) Lecture, three hours; discussion, one hour. Continuing construction and expression of ethnic identity in various cultural and social forms and contexts in Hawai'i. Overview of theoretical approaches to and basic concepts in study of ethnic identity and ethnic relations. Discussions of historical and contemporary relations of ethnic identity and ethnic relations in Hawai'i. Given in Hawai'i. P/NP or letter grading.


M163. Worker Center Movement: Next Wave Organi- zation for Justice for Immigrant Workers. (4) (For- merly numbered M166C.) (Same as African American Studies M167, Chicana and Chicano Studies M130, and Labor Studies M187.) Seminar, three hours. Devel- opment of theoretical understanding of the concept of worker center movement, with focus on historical factors that have led to emergence and growth of worker centers. Role of worker centers in promoting multilingual and multicultural campaigns for workplace and economic justice. Transnational cross-border solidarity issues and rights of undocumented workers. P/NP or letter grading.

M164. War and Violence, Globalization: India, Philip- pinnes, Singapore, Vietnam. (4) (Same as Gender Studies M166A.) Lecture, four hours. Study of various forms of violence done on women not only in and of themselves but in light of the system of oppression, with focus on Filipino, Vietnamese, Singaporean, and South Asian cultures. Letter grading.

M165. Race, Gender, Class. (5) (Same as Compara- tive Literature M175.) Seminar, three hours. Theoretical and literary readings combined to explore three main aspects of social and cultural experience (race, gender, class) as separate but interconnected spheres affecting both minority and majority populations in U.S. Examination of theory and concepts from comparative perspectives. P/NP or letter grading.

M166A. Immigrant Rights, Labor, and Higher Edu- cation. (4) (Same as Chicana and Chicano Studies M156A and Labor Studies M166A.) Lecture, three hours. In-depth analysis of immigrant, migrant, and immigrant rights movement, with particular attention to labor and higher education. Overview of history of immigrant rights movement and examination of development of coalition efforts between labor movement and immi-
grant rights movement nationally and locally. Special
focus on issue of immigrant students in higher educa-
tion, challenges facing undocumented immigrant stu-
dents, and legislative and policy issues that have
tempered. Students conduct oral histories, family his-
tories, research on immigrant and migrant rights, write poetry and spoken word about immigrant experi-
ence, and work to collect data and develop student publi-
cation on immigrant students in higher education. P/ NP or letter grading.

M166B. Research on Immigration Rights, Labor, and Higher Education. (4) (Same as Chicana and Chicano Studies M166B and Labor Studies M166B.) Seminar, two hours. Required course: course M166A. Expansion of research conducted by students in course M166A involving oral histories, research on immigration/labor/higher education, and evaluation of legisla-
tional and legal issues impacting undocumented stu-
dents. Letter grading.

M166C. Research on Immigrant Students and Higher Education. (4) (Same as Chicana and Chicano Studies M156C and Labor Studies M166C.) Seminar, three hours. Enforced requisites: courses M166A, M166B. Expansion of research conducted by students in courses M166A and M166B involving oral histories, research on immigration/labor/higher education, and evaluation of legislative and legal issues impacting undocumented students. Designed around class project, where students work on showcasing all material col-
lected throughout year. Letter grading.

167. Immigration and New Second Generation. (4) Lecture, two hours. Examination of lived experiences of contemporary immigrants and their children. Examina-
tion of socioeconomic circumstances, life chances, and outcomes of new second generation. Review of theoretical literature and empirical research on immi-
grant and migrant adaptation, comparing histori-
cal and contemporary trends of immigration and ex-
periences of adult immigrants. Study of immigrant children’s development, adaptation patterns, pro-
cesses, and mechanisms of growing up American and identity formation. Asian immigration and Asian Amer-
ican from comparative perspective. P/NP or letter grading.

M168. Student-Initiated Retention and Outreach Is-
sues in Higher Education. (4) (Same as African American Studies M118, American Indian Studies M118, and Chicano/Latino Studies M118.) Lecture, four hours. Exploration of issues in outreach and retention of students in higher education, especially through student-initiated programs, efforts, activities, and services with SGA, MSA, USA as case. May be re-
peated for credit. Letter grading.

M169. Constructing Race. (4) (Same as African American Studies M159P and Anthropology M144P) Lecture, three hours; discussion, one hour (when scheduled). Examination of structural, social, cultural, and historical, from course 19, 20W, 200, 30, 30W, 40, 40W, 50, 50W, or 50W. Examination of how refugees are repre-
sented in government and popular media, and how refugees represent themselves through cultural production. Rather than focus on refugee as victim, students examine refugees as agents of social change across multiple historical and geopolitical contexts. Focus on colonial South Asia, South Asian diasporas in U.K., South Asian Americans in U.S., and transna-
tional South Asia. Ethnographic and historical ap-
proaches to study of South Asians in comparative frame and consideration of how transnational per-
spectives enable revisiting South Asian American experiences and to rethink relationship between South Asian American studies, diaspora studies, and area studies. P/NP or letter grading.

170. Transnational Perspectives on Asian America. (4) Lecture, three hours. Recommended preparation: background in Asian Pacific American social and legal history. Determinants of migration. Examination of transformations that have occurred in Asian America in last four decades as consequence of global eco-
nomic restructuring and new immigration. Introduction to and survey of new frameworks for understanding these changes in postmodern Asian Pacific American communities, using theories of transnationalism and Asian American political and racial history. Readings and discussions include aspects of the transna-
tional and historical topics in context of Asian/Asian American experience. Building of linkages between roots of social constructions of race and mul-
tidisciplinary work and new constitutions and multi-

171A. Critical Issues in U.S.-China Relations. (4) Lecture, three hours. Examination of U.S.-China, Hong Kong, and Taiwan, including study of historical, cultural, po-
litical, and socioeconomic factors that shape rela-
tions between China, Hong Kong, and Taiwan. U.S. Ex-
amination of impact of relationships in Pacific Rim and Chinese Americans and their communities. P/NP or letter grading.

171B. Critical Issues in U.S.-Japan Relations. (4) Lecture, three hours. Not open to freshmen. Critical examination of U.S.-Japan relationship, including study of historical, cultural, political, and socioeco-
nomic factors that shape relations between Japan and U.S. Examination of impact of relationships in Pacific Rim and Japanese Americans and their communities. P/NP or letter grading.

171C. Critical Issues in U.S.-Korea Relations. (4) Lecture, three hours. Not open to freshmen. Critical examination of U.S.-Korea, including study of historical, cultural, political, and socioeco-
nomic factors that shape relations between Korea and U.S. Examination of impact of relationships in Pacific Rim and Korean Americans and their communities. P/NP or letter grading.

171D. Critical Issues in U.S.-Philippine Relations. (4) (Same as History M144C.) Lecture, three hours; discussion, one hour (when scheduled). Recommended prepara-
tion: History 171B in 176B. Designed for juniors/seniors. Examination of complex inter-
relationship between U.S. colonialism, Philippine nationalism, history of Filipinos, and Philip-
ines diaspora in 20th century. P/NP or letter grading.

171E. Critical Issues in U.S.-Vietnam Relations. (4) Lecture, three hours. Not open to freshmen. Critical examination of U.S. involvement in Vietnam, including study of historical, cultural, political, and socioeco-
nomic factors that shape relationships in Pacific Rim and U.S. Examination of impact of relationships in Pa-
cific Rim and Vietnamese Americans and their com-
munities. P/NP or letter grading.

M172A. Indian Identity in U.S. and Diaspora. (4) (Same as History M174G.) Lecture, three hours; dis-
cussion, one hour (when scheduled). Designed for ju-
niors/seniors. History of overseas Indians; transformations of culture and historical emergence of a new diasporic art forms such as bhanga rap and chutney music; relations between Indians and other racial and ethnic groups; Indian women as embodi-
ment of Indian culture; diasporic identities. P/NP or letter grading.

172B. Gender in South Asian Communities at Home and Abroad. (4) Seminar, three hours. Examina-
tion of centrality of gender to histories and identi-
ties of South Asia and South Asian diasporas. May not be repeated for credit. P/NP or letter grading.

176. Making Fiction Work: Philippines and Its Else-
wheres. (4) Seminar, three hours. Required: one (may be repeated for credit. P/NP or letter grading.

177. Social Movements in Guam and Pacific. (4) Lecture, three hours. Survey of immigrant and indige-
nous histories in Guam, Mariana Islands, and Oceania, Emphasis on Asian, Chamorro, and Pacific Islander communities, and feminism, environmentalism, and religion and religious movements. P/NP or letter grading.

178. Critical Refugee Studies. (4) Lecture, three hours: course 10, 10W, 20, 20W, 30, 30W, 40, 40W, 50, 50W, or 50W. Examination of how refugees are repre-
sented in government and popular media, and how refugees represent themselves through cultural production. Rather than focus on refugee as victim, students examine refugees as agents of social change across multiple historical and geopolitical contexts. Focus on colonial South Asia, South Asian diasporas in U.K., South Asian Americans in U.S., and transna-
tional South Asia. Ethnographic and historical ap-
proaches to study of South Asians in comparative frame and consideration of how transnational per-
spectives enable revisiting South Asian American experiences and to rethink relationship between South Asian American studies, diaspora studies, and area studies. P/NP or letter grading.

M172C. Transnational Bollywood. (4) (Same as Communication M137.) Lecture, three hours. Study of how popular Bollywood cinema materializes colonial and postcolonial formations pertaining to gender, class and caste, sexuality, race, and economic liberal-
ization. The course looks across South Asian communities in North America, U.K., and Africa. Examina-
tion of how complex relationships between Bol-
lywood and transnational South Asian diasporas en-
able us to better understand South Asian American communities. P/NP or letter grading.

M173. Topics in Vietnamese Cinema and/or Litera-
ture. (4) (Same as Vietnamese CM155.) Lecture, three hours; discussion, one hour. Knowledge of Viet-
namese film is not required. Historical examination of li-
terary and/or filmic representations connected to social practices such as empire, nation, diaspora, and globalization. Original language course materials available for interested students. P/NP or letter grading.

174A. Special Courses in Comparative Race, Ethnic-
ity, Gender, and Sexuality. (4) Lecture, three hours; discussion, one hour (when scheduled). Limited to juniors/seniors. Variable topics in selected comparative and interna-
tional courses pertaining to transnationalism and dias-
poras. May be repeated for credit with topic change. P/NP or letter grading.

174B. Special Courses in Transnationalism and Di-
asporas. (4) Lecture, three hours; discussion, one hour (when scheduled). Limited to juniors/seniors. Variable topics in selected comparative and interna-
tional courses pertaining to transnationalism and dias-
poras. May be repeated for credit with topic change. P/NP or letter grading.

174C. Topics in Comparative Race, Ethnicity, Gen-
der, and Sexuality. (4) Seminar, three to four hours. Limited to juniors/seniors. Variable topics in selected comparative and in-
ternational courses pertaining to transnationalism and dias-
poras. May be repeated for credit with topic change. P/NP or letter grading.

175A. Topics in Transnationalism and Diasporas. (4) Seminar, three to four hours. Limited to juniors/se-
niors. Variable topics in selected comparative and in-
ternational courses pertaining to transnationalism and diasporas. May be repeated for credit with topic change. P/NP or letter grading.

176. Making Fiction Work: Philippines and Its Else-
wheres. (4) Seminar, three hours. Required: one (may be repeated for credit. P/NP or letter grading.

177. Social Movements in Guam and Pacific. (4) Lecture, three hours. Survey of immigrant and indige-
nous histories in Guam, Mariana Islands, and Oceania, Emphasis on Asian, Chamorro, and Pacific Islander communities, and feminism, environmentalism, and religion and religious movements. P/NP or letter grading.
in cultural formation, religion, education, social class, economic development, social movement, politics, and public policy. May be repeated for credit with topic change. P/NP or letter grading.

187C. Special Courses in Asian American Populations and Communities. (4) Lecture, three to four hours. Limited to juniors/seniors. Variable topics in historical and contemporary issues pertaining to different Asian-origin subgroups and their respective communities. May be repeated for credit with topic change. P/NP or letter grading.

188. Special Courses in Asian American Studies. (4) Seminar, four hours. Program-sponsored experimental course, such as those taught by visiting faculty members. May be repeated for credit with topic change. P/NP or letter grading.

188SA. Individual Studies for USIE Facilitators. (1) Tutorial, to be arranged. Enforced corequisite: Honors Collegium 101E. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor to discuss selected USIE seminar topic, conduct preparatory research, and begin preparation for individual contract with faculty mentor. May not be repeated. Letter grading.

188SB. Individual Studies for USIE Facilitators. (1) Tutorial, to be arranged. Enforced corequisite: course 188SA. Enforced corequisite: Honors Collegium 101E. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor to finalize course syllabus. Individual contract with faculty mentor required. May not be repeated. Letter grading.

188SC. Individual Studies for USIE Facilitators. (2) Tutorial, to be arranged. Enforced corequisite: course 188SB. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor while facilitating USIE 88S course. Individual contract with faculty mentor required. May not be repeated. Letter grading.

189. Advanced Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to undergraduate lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

189HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed for students in combination lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 6 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

191A. Topics in Research Methodologies. (4) Seminar, three to four hours. Limited to juniors/seniors. Variable topics in multidisciplinary research methodologies in Asian American studies. May be repeated for credit with topic change. P/NP or letter grading.

191B. Topics in Asian American Themes. (4) Seminar, three to four hours. Limited to juniors/seniors. Variable topics in selected Asian American themes, including issues in cultural formation, religion, education, social class, economic development, social movement, politics, and public policy. May be repeated for credit with topic change. P/NP or letter grading.

191C. Topics in Asian American Populations and Communities. (4) Seminar, three to four hours. Limited to juniors/seniors. Variable topics in historical and contemporary issues pertaining to different Asian-origin subgroups and their respective communities. May be repeated for credit with topic change. P/NP or letter grading.

M191F. Topics in Asian American Literature. (5) (Same as English M191F) Seminar, three or four hours. Enforced prerequisite: English Composition 3 or 3H. Variable specialized studies course in Asian American literature. Topics may include genres (autobiography, novel, poetry, short fiction, or drama); specific nationalities within Asian American community; themes of transnational narratives, cross-cultural, interdisciplinary, or intercultural negotiation; and gender and queer politics. Reading, discussion, and development of culminating project. May be repeated for credit with topic or instructor change. P/NP or letter grading.

192. Undergraduate Practicum in Asian American Studies. (2 or 4) Seminar, two or four hours. Limited to juniors/seniors. Training and supervised practicum for advanced undergraduate students in Asian American studies content in preparation of materials and development of innovative programs with guidance of faculty members in small course settings. May not be applied toward departmental major or minor requirements. May be repeated for credit. P/NP or letter grading.

195. Community or Corporate Internships in Asian American Studies. (4) Tutorial, two hours; fieldwork. Requisites: courses 10 or 10W, and 20. Limited to juniors/seniors. Internship in supervised setting in community agency or business. Students meet on regular basis with instructor and provide periodic report of their experience. Individual contract with supervising faculty member required. P/NP or letter grading.

M195CE. Comparative Approaches to Community and Corporate Internships. (4) (Same as Asian American Studies M195CE) Seminar, three hours. Designed as adjunct to upper-division lecture course. In-depth study of Asian American communities. May be repeated for credit with topic change. P/NP or letter grading.

196. Research Apprenticeship in Asian American Studies. (4) Seminar, three hours. Limited to juniors/seniors. Entry-level research apprenticeship for upper-division students under guidance of faculty mentor to learn skills and techniques. May not be applied toward departmental major or minor requirements. May be repeated for credit. Individual contract required. P/NP grading.

197. Individual Studies in Asian American Studies. (2 to 4) Seminar, three hours. Limited to 10 or 10W or 20 or 20 or comparative knowledge in Asian American studies. Limited to juniors/seniors. Supervised individual research or investigation under guidance of faculty mentor. Culminating research paper or project report required. May be repeated for maximum of 8 units. Individual contract required. P/NP or letter grading.

198. Honors Research in Asian American Studies. (4) Tutorial, three to four hours. Requisites: two courses from 10 (or 10W), 20, and 30 (or 30W) and one course from 10 or 10W or 20 or 20 or comparative knowledge in Asian American studies. 3.0 grade-point average or better. Limited to juniors/seniors. Directed reading of scholarly works on Asian American studies. Students develop their research projects, including identifying and applying appropriate methodologies. Enforced corequisite: Honors Collegium 101E. Enforced requisite: course 10 or 10W or 20 or 20 or comparative knowledge in Asian American studies. Limited to juniors/seniors. Supervised individual research or investigation under guidance of faculty mentor. Culminating research paper or project report required. May be repeated for maximum of 8 units. Individual contract required. P/NP or letter grading.

199. Directed Research or Senior Project in Asian American Studies. (2 to 4) Tutorial, three hours. Preparation: 3.0 overall grade-point average. Requisites: courses 10 (or 10W) and 20 or comparative knowledge in Asian American studies. Limited to juniors/seniors. Supervised individual research or investigation under guidance of faculty mentor. Culminating research paper or project report required. May be repeated for maximum of 8 units. Individual contract required. P/NP or letter grading.

Graduate Courses

200A. Historical Perspectives on Asian American and Pacific Islander American Communities. (4) Seminar, three hours. Designed for graduate students. Examination of critical issues in Asian and Pacific Islander American history and historiography. Introduction to research in archival and/or oral history methods.

200B. Critical Approaches to Emerging Issues in Asian and Pacific Islander American Studies. (4) Seminar, three hours. Designed for graduate students. Examination of emerging issues in Asian and Pacific Islander American communities, using selected theoretical approaches. Introduction to research in social scientific methods such as ethnography, participant observation, interviewing, survey development, or community-based research.

200C. Critical Issues in Asian and Pacific Islander American Literature and Cultural Studies. (4) Seminar, three hours. Designed for graduate students. Examination of critical questions emerging from Asian and Pacific Islander American literary and cultural criticism and/or practice. Introduction to research in literary and cultural criticism and/or practice.

200D. Critical Issues in Asian and Pacific Islander American Studies Methods. (4) Seminar, three hours. Designed for graduate students. Critical engagements with methodology in Asian and Pacific Islander studies. Students develop their thesis or capstone projects, including identifying and applying appropriate methodological approaches.

203. Asian American Research Methods. (4) Seminar, three hours. Introduction to empirical research methods, stressing uses and relevancy in research with ethnic minority populations. Review of characteristics and logical processes of research and applicability of scientific and scholarly inquiry in advancing knowledge.


220. Colonialism and Law in Pacific, (4) Seminar, three hours. Reading seminar on broad topics of colonialism and law. Survey of anthropological, historical, and legal studies of ways in which colonialism and law operated in Asia and Pacific Islander studies. Focus on the role of law in shaping history and identity of pan-Pacific and Asian societies.

221A-215B. Asian American Jurisprudence. (215A: 3 or 4/215B: 1 or 2) Lecture, three hours. Course 215A is enforced requirement for graduate students. Through judicial opinions, commentary, and historical readings, examination of how American law has shaped demographics, experiences, and positions of Asian-Latinos. Course 215B views how they shaped American law as well. Concurrently scheduled with Law 315. In Progress (215A) and S/U or letter (215B) grading.

222. Colonialism and Law in Pacific, (4) Seminar, three hours. Reading seminar on broad topics of colonialism and law. Survey of anthropological, historical, and legal studies of ways in which colonialism and law operated in Asia and Pacific Islander studies. Focus on the role of law in shaping history and identity of pan-Pacific and Asian societies.


Asian American Studies / 207
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Robert E. Buswell, Jr., PhD (Irvig and Jean Stone Professor)
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Professors Emeriti
Ben Befu, PhD
Hung-Hsiang Chou, PhD
John B. Duncan, PhD
Robert C. Esp, PhD
Theodore D. Huters, PhD
Kan Lao, BA
Peter H. Lee, PhD
Hartmut E.F. Scharfe, PhD
Gregory R. Schopen, PhD
Jonathan A. Slik, PhD
Richard E. Strassberg, PhD
Shirleen S. Wing, PhD
Pauline R. Yu, PhD

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Torquill Duthie, PhD (Haruhiisa Handa Professor of Shinto Studies)
Christopher P. Hanscom, PhD
Namhee Lee, PhD
Min Li, PhD
Thu-huong Nguyen-vo, PhD
Sung-Deuk Oak, TND
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Hyun Suk Park, PhD
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Junko Yamazaki, PhD

Senior Lecturer SOE
Gyanam Mahajan, PhD

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Thu-Ba Nguyen-Hoai, PhD
Yoko Nomori, MA
Yan Shen, MA
Michelle M. Fu Smith, PhD
Xiaoxin Sun, BA
Asako H. Takakura, EDD
Juliana Wijaya, PhD
Yu-ven Yao, MA
Jae-eun Yoon, MA

Scope and Objectives
The Department of Asian Languages and Cultures offers a wide range of courses in the languages, literatures, religions, and cultural heritage of China, Japan, and Korea, as well as South and Southeast Asia. The department offers training in many specialized fields such as archaeology, film, folklore, history, linguistics, literature, mythology, religious studies, and cultural studies. Courses prepare students for careers in business, government service, international relations, journalism, law, publishing, teaching, and academic professions.

Undergraduate majors earn a Bachelor of Arts degree. The graduate program offers PhD degrees.

For undergraduates, the department offers majors that combine language study with courses taught in English that examine the rich cultural heritage of China, Japan, and Korea, as well as South and Southeast Asia. The majors also offer opportunities for education abroad in an Asian country. The language courses aim to develop the four skills of speaking, aural comprehension, reading, and writing in a balanced and mutually supportive manner. The lecture and seminar courses aim to develop critical thinking and writing skills through in-depth study of a culture within a broader historical and comparative context.
Undergraduate majors who wish to pursue graduate degrees are encouraged to apply for admission to the departmental honors program.

At the graduate level, the department offers highly selective PhD degree programs that train research scholars for academic careers in various fields of Asian culture, including literature, linguistics, film, religion, and history.

Courses for Nonmajors

The department offers many courses in which knowledge of Asian languages is not required. A current list is available on the Registrar’s course descriptions web page.

Undergraduate Study

The department offers one major in the study of Asian languages and linguistics—BA in Asian Languages and Linguistics, two majors in the study of Asian cultures—BA in Asian Humanities and BA in Asian Religions, and three majors in Asian literatures and cultures—BA in Chinese, BA in Japanese, and BA in Korean. Each course in the majors must be taken for a letter grade.

The department also offers two minors—Asian Humanities minor and Asian Languages minor. Each course in the minors must be taken for a letter grade.

Students considering a major or minor in the department should consult with the departmental undergraduate adviser as soon as possible in their university career, but in no case later than the point at which they are about to begin taking upper-division courses. Students should select courses to fulfill major or minor requirements in consultation with the undergraduate adviser. The approved list of courses for each category of major or minor requirements is available in the department office (290 Royce Hall) and on its website.

At least 24 upper-division units required for the majors must be completed successfully while in residence at UCLA.

Placement in Language Courses

Students are not placed in Chinese, Filipino, Hindi-Urdu, Indonesian, Japanese, Korean, Thai, and Vietnamese language courses automatically according to their years of previous study. Students with any prior knowledge or study of an Asian language who wish to take courses in that language at UCLA are required to take the appropriate departmental language placement examination (see the Schedule of Classes or department website for more information). The examination determines which course is most appropriate for the student’s current level of proficiency. Students who have obtained college credit for Asian language courses may not repeat those same courses for credit. Prospective majors who place out of the upper-division modern language requirement are expected to substitute an equivalent number of other units to be selected in consultation with the departmental undergraduate adviser.

Language Acquisition Courses

No credit is allowed for completing a less advanced course after successful completion of a more advanced Asian language course with focus on conversation, grammar, and/or composition.

Asian Humanities BA

Learning Outcomes

The Asian Humanities major has the following learning outcomes:

- Identification of major elements of cultures in Asia, with particular attention to chosen regions of expertise
- Assessment of the social contours of a given Asian society and explanation of ways in which dynamics within communities and other social structures shape the course of events
- Understanding of the role that language and literature play in reflecting and influencing Asian societies, across time and different literary genres
- Formulation of effective written and oral arguments that address important themes and issues in Asian arts and cultures, in ways that are historically appropriate and relevant to particular contexts
- Conduct research on Asian languages, literatures, and other cultural elements, making effective and critical use of primary and secondary source materials
- Appreciation of the central place of religion in Asian cultures, with focus on chosen region of expertise and tradition of focus

Preparation for the Major

Required: Completion of the intermediate sequence in one Asian language offered by the department (e.g., Chinese 6, 10, Filipino 6, Hindi-Urdu 100C, Indonesian 6, Japanese 6, 10, Korean 6, 10, Thai 6, Vietnamese 6, or equivalent) and Asian 30 or one civilization course (e.g., Chinese 50, Japanese 50, 70, Korean 50) or one introduction to religions course (e.g., Asian M60, M60W, M61, Chinese M60, M60W, Korean M60, South Asian M60, Southeast Asian M60) or one culture course (e.g., Japanese 75, 80, Korean 40, 70, 80) within the department.

Transfer Students

Transfer applicants to the Asian Humanities major with 90 or more units must complete as many as of the following introductory courses as possible prior to admission to UCLA: two years of Chinese, Japanese, Korean, Filipino/Tagalog, Hindi, Indonesian, Thai, or Vietnamese and either one civilization course on Asia or one introduction to Buddhism course or one introduction to Asian religions course.

Applicants are referred to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

The Major

Required: Three upper-division language courses in one Asian language offered by the department and eight upper-division electives within the department, including at least one course from at least four of the following areas: Asia, China, Japan, Korea, South Asia, or Southeast Asia.

Asian Languages and Linguistics BA

Learning Outcomes

The Asian Languages and Linguistics major has the following learning outcomes:

- Identification of major linguistic features of Asian languages, with attention to chosen region of expertise
- Demonstrated working knowledge of one or two Asian languages
- Demonstrated competency in fieldwork with Asian languages in their natural social and cultural contexts
- Demonstrated familiarity with current theories of language pedagogy with practical skills in classroom teaching of an Asian language
- Understanding of the interdependency and dynamic relationship between language, society, culture, and social interaction in the context of Asian languages across time and different modes of communication
- Conduct research and formulate effective written and oral arguments that address important themes and issues in languages and cultures of Asia

Preparation for the Major

Required: Completion of the intermediate sequence in one Asian language offered by the department (e.g., Chinese 6, 10, Filipino 6, Hindi-Urdu 100C, Indonesian 6, Japanese 6, 10, Korean 6, 10, Thai 6, Vietnamese 6, or equivalent) and Asian 30 or one civilization course (e.g., Chinese 50, Japanese 50, 70, Korean 50, Southeast Asian 70) or one introduction to religions course (e.g., Asian M60, M60W, M61, Chinese M60, M60W, Korean M60, South Asian M60, Southeast Asian M60) or one culture course (e.g., Japanese 75, 80, Korean 40, 70, 80) within the department; and Linguistics 20.

All preparation courses must be completed with a C or better grade. A minimum 2.5 grade-point average is required for both (1) the language and (2) Linguistics 20 and the civilization/religion course.

Transfer Students

Transfer applicants to the Asian Languages and Linguistics major with 90 or more units must complete as many as of the following introductory courses as possible prior to admission to UCLA: two years of Chinese, Japanese, Korean, Filipino/Tagalog, Hindi, Indonesian, Thai, or Vietnamese and either one Asian languages and culture course or one civilization course on Asia or one introduction to Buddhism course or one introduction to Asian religions course.

Applicants are referred to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.
The Major

**Required:** Eleven courses as follows: (1) five upper-division language courses in one Asian language offered by the department, and two upper-division elective courses within the department; (2) Asian 100 and 104, (3) two Asian linguistics courses selected from Asian CM124, Chinese 103, CM120, CM122, CM123, CM127, Korean CM120, 124, South Asian 170, and (4) two upper-division electives within the department or from the Linguistics Department.

**Asian Religions BA**

**Learning Outcomes**
The Asian Religions major has the following learning outcomes:

- Appreciation of the central place of religion in Asian cultures, with focus on chosen region of expertise and tradition of focus
- Understanding of the crucial role of language and written documents in the development of religious beliefs and practices
- Clear and effective writing on topics in the field, in a way that is sensitive to the complex dynamics and transformations of religion across Asian cultural boundaries
- Formulation of research projects using primary and secondary source materials, making effective and critical use of primary and secondary source materials
- Demonstrated working knowledge of one Asian language at an intermediate level
- Demonstrated basic exposure to the Buddhist argot of one Asian language

**Preparation for the Major**

**Required:** Completion of the intermediate sequence in one Asian language offered by the department (e.g., Chinese 6, 10, Filipino 6, Hindi-Urdu 100C, Indonesian 6, Japanese 6, 10, Korean 6, 10, Thai 6, Vietnamese 6, or equivalent) and Asian 30 or one introduction to religions course from Asian M60, M60W, M61, Chinese M60, M60W, Korean M60, South Asian M60, or Southeast Asian M60.

**Transfer Students**

Transfer applicants to the Asian Religions major with 90 or more units must complete as many of the following introductory courses as possible prior to admission to UCLA: two years of Chinese and one Chinese civilization course.

**The Major**

**Required:** Eleven courses as follows: (1) five language courses in modern or premodern language or texts selected from Japanese 100A and 100B and 100C or 100S, 100R, 101A and 101B or 101C or 101S, 103A, 103B, 104, 105A, 105B, 110A, 110B, M120, CM123, 130A, 130B, 140A, 140B, 140C, C149, 165, (2) one literature course selected from C150, 151, 154, M156, 157, C159, 170, 172, 174, or 191A, (3) three elective courses on Japan selected from C112, CM122, CM123, CM127, 155, CM160, 161, 165, C171, C182, 191B, 191C, or from items 1 and 2 above not used to fulfill another requirement, and (4) two additional upper-division elective courses within the department.

**Japanese BA**

**Learning Outcomes**
The Japanese major has the following learning outcomes:

- Demonstrated broad knowledge of Japanese cultural history from ancient times to the present
- Demonstrated specific skills and expertise, including research, analysis, and writing, of a specialized topic in the study of Japanese language and culture
- Ability to identify primary sources in Japanese and analyze them within their historical and cultural context
- Working knowledge of scholarly discourse on a specialized topic in Japanese culture
- Conception and execution of research projects that identify and engage with a specialized topic in Japanese culture

**Preparation for the Major**

**Required:** Japanese 6 or 10 or equivalent, and one course from 50, 70, 75, 80, Asian 30.

**Transfer Students**

Transfer applicants to the Japanese major with 90 or more units must complete as many of the following introductory courses as possible prior to admission to UCLA: two years of Japanese and one Japanese civilization or images of Japan course.

**The Major**

**Required:** Eleven courses as follows: (1) five language courses in modern or premodern language or texts selected from Japanese 100A and 100B and 100C or 100S, 100R, 101A and 101B or 101C or 101S, 103A, 103B, 104, 105A, 105B, 110A, 110B, M120, CM123, 130A, 130B, 140A, 140B, 140C, C149, 165, (2) one literature course selected from C150, 151, 154, M156, 157, C159, 170, 172, 174, or 191A, (3) three elective courses on Japan selected from C112, CM122, CM123, CM127, 155, CM160, 161, 165, C171, C182, 191B, 191C, or from items 1 and 2 above not used to fulfill another requirement, and (4) two additional upper-division elective courses within the department.

**Korean BA**

**Learning Outcomes**
The Korean major has the following learning outcomes:

- Demonstrated advanced knowledge of written and spoken Korean
- Broad knowledge of Korean history, literature, thoughts, and religions from the ancient to the modern era
- Engagement in critical comparisons of historical and other narratives
- Relation of historical and cultural developments in Korea with other countries in East Asia and beyond
- Discussion of the scholarly literature about a topic in an area of expertise
• Analysis of texts, cultural objects, and historical developments based on disciplinary knowledge
• Conduct research projects using primary and second source materials critically and persuasively

Preparation for the Major
Required: Korean 6 or 6A or 10 or equivalent, and one course from 40, 50, M60, 70, 80, Asian 30.

Transfer Students
Transfer applicants to the Korean major with 90 or more units must complete as many of the following introductory courses as possible prior to admission to UCLA: two years of Korean and one Korean civilization course.

Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

The Major
Required: Eleven courses as follows: (1) five language courses selected from Korean 100A, 100B, 100C, 101A and 101B and 101C or 101I, 102A, 102B, 102C, 103A, 103B, 103C, 104A, 104B, 104C, C105A, C105B, C105C, 106A, 106B, 106C, 107A, 107B, 107C, CM120, 124, 165, 176, 178, (2) one literature course selected from 130A, 130B, C150, or C151, (3) three elective courses from Korean 198A-198B-198C are taken in spring quarter of their junior year. To enter the minor, students must have an overall grade-point average of 2.0 or better, have completed 45 units at UCLA and all lower-division requirements for the minor, and consult with the departmental undergraduate adviser.

Required Lower-Division Courses (10 units): Two courses from Asian 30, M60, M60W, M61, Chinese 50, M60, M60W, Japanese 50, 70, 75, 80, Korean 40, 50, M60, 70, 80, South Asian M60, Southeast Asian M60.

Required Upper-Division Courses (20 units): Five courses in the department concerning Asian culture (e.g., film, folklore, history, linguistics, literature, mythology, religious studies). A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor, and at least 16 units must be taken in residence at UCLA. Each minor course must be taken for a letter grade, and students must have an overall grade-point average of 2.0 or better in the minor. Successful completion of the minor is indicated on the transcript and diploma.

Asian Humanities Minor
The Asian Humanities minor is designed to recognize a serious commitment to the study of Asian cultures. Lower-division survey courses in civilizations and religious traditions provide students with a solid foundation in the diverse cultural heritages of Asia. Students may fulfill upper-division requirements from a wide variety of courses in all aspects and historical periods of Asian humanities.

To enter the minor, students must have an overall grade-point average of 2.0 or better, have completed 45 units at UCLA and all lower-division requirements for the minor, and consult with the departmental undergraduate adviser.

Required Lower-Division Courses (10 units): Two courses from Asian 30, M60, M60W, M61, Chinese 50, M60, M60W, Japanese 50, 70, 75, 80, Korean 40, 50, M60, 70, 80, South Asian M60, Southeast Asian M60.

Required Upper-Division Courses (20 units): Five courses in the department concerning Asian culture (e.g., film, folklore, history, linguistics, literature, mythology, religious studies). A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor, and at least 16 units must be taken in residence at UCLA. Each minor course must be taken for a letter grade, and students must have an overall grade-point average of 2.0 or better in the minor. Successful completion of the minor is indicated on the transcript and diploma.

Graduate Study
Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Division website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Graduate Degrees
The Department of Asian Languages and Cultures offers Master of Arts (MA), Candidate in Philosophy (CPhI), and Doctor of Philosophy (PhD) degrees in Asian Languages and Cultures and a Master of Arts (MA) degree in Teaching Asian Languages.

The Graduate Council of the UCLA Academic Senate has approved a temporary suspension of admission to the Teaching Asian Languages MA degree effective fall quarter 2018 through spring quarter 2021.

Asian Lower-Division Courses
19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

M20. Visible Language: Study of Writing. (5) Same as Indo-European Studies M20, Near Eastern Languages M20, Slavic M20, and Southeast Asian M20.) Lecture, three hours; discussion, one hour. Consideration of concrete means of language representation in writing systems. Earliest representations of language known are those of Near East dating to end of 4th millennium BC. While literate civilizations of Egypt, Indus Valley, China, and Mesoamerica left little evidence of
corresponding earliest developments, their antiquity and, in case of China and Mesoamerica, their evident isolation mark these centers as loci of independent developments in writing. Basic characteristics of early scripts, assessment of modern alphabetic writing systems, and presentation of conceptual basis of semi-otic language representation. Origins and development of early non-Western writing systems. How Greco-Roman alphabet arose in 1st millennium BC and how it compares to other modern writing systems. P/NP or letter grading.

30. Languages and Cultures of Asia. (5) Lecture, three hours; discussion, one hour. Comparative per- spectives on Asian languages, with emphasis on three major East Asian languages—Chinese, Japanese, and Korean—to show what they share and how they differ in terms of linguistic features, historical development, and larger cultural settings in which these three languages are used. P/NP or letter grading.

M60. Introduction to Buddhism. (5) (Same as Reli- gion M60A.) Lecture, three hours; discussion, one hour. Not open for credit to students with credit for course M50W. Knowledge of Asian languages not re- quired. General survey of development of Buddhism in India, with focus on those religious doctrines and meditative practices most essential to various Asian traditions of Bud- dhism. Letter grading.

M60W. Introduction to Buddhism. (5) (Same as Reli- gion M60W) Lecture, three hours; discussion, one hour. Enforced requisite: English Composition 3 or 3H or English as a Second Language 36. Not open for credit to students with credit for course M50W. Knowledge of Asian languages not required. General survey of Buddhist worldview and lifestyle, with focus on those religious doctrines and meditative practices most essential to various Asian traditions of Bud- dhism. Letter grading.

M61. Introduction to Zen Buddhism. (5) (Same as Religion M61.) Lecture, three hours; discussion, one hour. Knowledge of Asian languages not required. In- troduction to Zen traditions and to interplay between Zen and other fundamental cultural and religious con- cerns in East Asia. Topics include role of Zen within Buddhist thought and practice, artistic and literary arts, society, and daily life. Letter grading.

70A-70B-70C. Popular Culture in East Asia. (5-5-5) Lecture, two hours; discussion, one hour. Poetry, con- culture in China, Japan, Korea, and Vietnam. Topics include popular religion, language, literature, arts, ma- terial culture, cinema, and music. Themes include identities, class and gender relations. Letter grading. 70A, 17th through 19th Centuries; 70B, 1895 to 1945; 70C, From 1945.

89. Honors Seminars. (1) Seminar, three hours. Lim- ited to 20 students. Designed as adjunct to lower-divi- sion lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible stu- dents. Honors content noted on transcript. P/NP or letter grading.

89HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. De- signed as adjunct to lower-division lecture course. In- dividual study with lecture course instructor to explore topics in greater depth through supplemental read- ings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract re- quired. Honors content noted on transcript. Letter grading.

99. Student Research Program. (1 to 2) Tutorial (su- pervised research or other scholarly work), three hours per week. Independent research for low-division under- gRADUATE students under guidance of faculty mentor. Stud- ents must be in good academic standing and en- rolled in minimum of 12 units (excluding this course). Individual honors contract; consult Undergraduate Research Center. May be repeated. P/NP grading.

Upper-Division Courses

100. Methods in Asian Linguistics. (4) Lecture, three hours; discussion, one hour. Research methodologies for dealing with Asian languages, with emphases on bibliographical, data, and professional resources, is- sues in analyzing and presenting language examples, explaining language phenomena beyond what is ob- served, cross-linguistic comparisons, oral presenta- tion skills, and writing reports in organized ways. P/NP or letter grading.


120FL. Readings in East Asian Languages. (2) Seminar, two hours. Requisite: Chinese 6 or 6A or 6C, or Japanese 6 or Korean 6 or 6A. Enforced corequi- site: course 120. Additional work in major East Asian languages to enrich and augment work assigned in course 120, including reading, writing, and other exer- cises in Chinese, Japanese, and Korean. P/NP or letter grading.

121. Field Methods in Asian Languages and Cul- tures. (3) Lecture, three hours. Recommended prepa- ration: at least one year of one Asian language. Exam- ination and application of methodologies to better un- derstand language and culture acquisition by working directly with native speaker of Asian language and/or through available materials. One or more field exer- cises in Chinese, Japanese, and Korean. P/NP or letter grading.

122. The Practice of Buddhism. (4) Seminar, two hours. Requisite: English Composition 3 or 3H. Introduces Buddhist traditions across historical periods as well as regional and cultural boundaries, including issues of praxis, politics, and translation. Letter grading.

123. Buddhism across Boundaries. (4) Lecture, two hours; discussion, one hour. Recommended prepara- tion: prior course on Buddhism or traditional Asian reli- gions. Knowledge of Asian languages not required. In- vestigation of various themes in development of Bud- dhist traditions across historical periods as well as regional and cultural boundaries, including issues of praxis, politics, and translation. Letter grading.

155. Buddhism, Film, and Media. (4) Lecture, three hours; discussion, one hour. Knowledge of Asian lan- guages not required. Survey of theory and practice of mediatization of Buddhism and Buddhist traditions across Thera- vada and Zen schools. Topics include various typolo- gies of meditation, symbiotic relationship between meditation and soteriology, and processes by which doctrinal innovation prompts changes in meditative praxis. Letter grading.

161. Topics in Asian Religions. (4) Lecture, three hours; discussion, one hour. Knowledge of Asian lan- guages not required. In-depth examination of selected topics in one or more religious traditions of Asia. Topics vary, but may include death, gender, and state and religion. May be repeated for credit with topic change. Letter grading.

189HC. Honors Contracts. (1) Tutorial, three hours; discussion, one hour. Knowledge of Asian languages not required. Survey of theory and practice of mediatization of Buddhism and Buddhist traditions across Thera- vada and Zen schools. Topics include various typolo- gies of meditation, symbiotic relationship between meditation and soteriology, and processes by which doctrinal innovation prompts changes in meditative praxis. Letter grading.

189. Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to undergraduate lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible stu- dents. Honors content noted on transcript. P/NP or letter grading.

189HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. De- signed as adjunct to upper-division lecture course. In- dividual study with lecture course instructor to explore topics in greater depth through supplemental read- ings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract re- quired. Honors content noted on transcript. Letter grading.

190. Research Colloquia in Asian Languages and Cul- tures. (1) Seminar, one hour. Corequisite: course 198A or 198B or 198C or 199. Designed to bring togeth- er advanced undergraduate students under- taking individual supervised tutorial research in semi- nars or workshops with one or more faculty members to dis- cuss their own work or related work in discipline. Led by one supervising faculty member. May be repeated for credit. P/NP grading.

195. Buddhism, Film, and Media. (4) Lecture, three hours; discussion, one hour. Knowledge of Asian languages not required. Survey of thought and practices of Buddhism in Tibet from its beginnings to present. Letter grading.

200. Approaches to Study of Religion. (4) Sem- inar, three hours. Investigation of many ways in which religion and religions may be studied, including an- thropological, sociological, psychological, phene- mological, political, religious, and cultural ap- proaches. Readings of primary and secondary sources of modern scholarship. Concurrently sched- uled with course C270. Letter grading.

205. Tibetan Buddhism. (4) Lecture, three hours. Knowledge of Asian languages not required. Survey of thought and practices of Buddhism in Tibet from its beginnings to present. Letter grading.

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191A. Variable Topics: Research Seminars: Life Writing in East Asia. (4) Seminar, three hours. Research seminar on selected topics. Readings of biography and autobiography as elements of East Asian cultural traditions, with focus rotating between China, Japan, and Korea. Readings in English and Japanese, East Asian languages, discussion, and development of culminating project. May be repeated for credit. Letter grading.

191B. Variable Topics Research Seminars: Buddhist Studies. (4) Seminar, three hours. Limited to juniors/seniors. Research seminar on selected topics in Buddhist studies. Reading, discussion, and development of culminating project. May be repeated for credit. Letter grading.

191H. Honors Research Seminars: Asian Languages and Cultures. (4) Seminar, three hours. Limited to departmental and College honors students. Introduction to research methods and critical approaches to study of Asia in preparation for writing of senior honors thesis. May be repeated for credit. Letter grading.

193. Speaker Series Seminars: Asian Languages and Cultures (2–2–2) Seminar, two hours. Limited to undergraduate students. Introduction to latest scholarship in field of Asian studies. Attendance at selected scholarly presentations required, as well as sessions with faculty adviser to discuss presentations and published works of speakers. May be repeated for credit. P/NP grading.

195. Community Internships in Asian Languages and Cultures, (4) Tutorial, one hour; fieldwork, eight hours. Enforced requisite: course 203. Internship supervised setting in community cultural or organizational setting. Students meet on regular basis with instructor and provide periodic journal reports of their experience. Final paper that combines academic research and knowledge gained from community experience required. Individual contract with supervising faculty member required. P/NP or letter grading.

198A-198B-198C. Honors Research in Asian Languages and Cultures. (4–4–4) Tutorial, three hours. Limited to junior/senior departmental majors. May be repeated for credit. Individual contract required. 198A. Preparation: one undergraduate departmental seminar. Development of honors thesis under direct supervision of faculty member. Letter grading. 198B. Enforced requisite: course 198A. Continuation of work initiated in course 198A. Presentation of research and relevant progress to supervising faculty member. In Progress grading (credit to be given only on completion of course 198C). 198C. Enforced requisite: course 198B. Theoretical research developed in courses 198A, 198B. Presentation of honors project to supervising faculty member. Letter grading.

199. Directed Research in Asian Languages and Cultures. (2–6) Tutorial, to be arranged. Recommended preparation: advanced reading knowledge of one Asian language. Limited to juniors/seniors. Supervised individual research or investigation under guided supervision of faculty mentor. Culumnating paper or project required. May be repeated once with consent of instructor. Individual contract required. Letter grading.

Graduate Courses


201. Proseminar: Approaches to Buddhist Studies. (4) Seminar, three hours. Designed for graduate students in Buddhist studies. Introduction to history of field, bibliography, relations with other disciplines, and current issues and research trends. S/U or letter grading.


203. Variable Topics in East Asian Linguistics. (4) Seminar, three hours. Advanced course that explores topics in East Asian linguistics through critical reading of current research on East Asian languages and in-depth analysis of linguistic data. Topics include linguistic structure, communicative function, pragmatics, language, society, and culture, and language change. May be repeated for credit. S/U or letter grading.

204A-204B. Issues in Teaching Asian Languages. (4–4) Lecture, three hours. Course 204A is enforced requisite to 204B. Critical reading and discussion of major pedagogical issues in teaching Asian languages such as Chinese, Japanese, and Korean as second languages, with focus on second language acquisition theories and best practices as related to Asian language teaching. In Progress (204A) and S/U or letter (204B) grading.

205. Variable Topics in East Asian Culture and History. (4) Seminar, three hours. Selected topics in East Asian culture and history, with focus on China, Japan, and Korea. May be repeated for credit with topic change. S/U grading.

210. Proseminar: Cultural and Comparative Studies. (4) Seminar, three hours. Enforced requisite for graduate students. Introduction to theoretical topics relevant to comparative study of East Asian cultures in modern period. Readings include Western theoretical works balanced with texts taking congruent approaches to East Asian topics. S/U or letter grading.


216. Seminar: History and Asia. (4) Seminar, three hours. Designed for graduate students. Readings and discussion of major historical trends, with focus on how they have been applied to Asia. Topics include Marxist histories, Annales school and cultural history, microhistories, gender, space, historical memory, postcolonial histories, subaltern, and modernity and Asia. S/U or letter grading.

220A-220B. Seminars: Topics in Cultural Studies. (4–4) Seminar, three hours. Complements course 210. Further investigation of methodology and materials of cultural studies. Specific topics selected by instructors. May be repeated for credit. In Progress (220A) and letter (220B) grading.

222A-222B. Corpus Linguistics. (4–4) Formerly numbered M224A and M224B. Seminar. Three hours. Construction and exploitation of computerized language corpora for studying issues in areas such as lexicology, discourse grammar, language change and teaching. Discussion of special issues in working with East Asian language corpora. In Progress (222A) and S/U or letter (222B) grading.

CM224. Teaching and Learning of Heritage Languages. (4) Seminar. Three hours. Enforced requisite: courses CM214 and Slavic CM214.Lecture, three hours. Consideration of issues relevant to heritage language learners (HLL) and to heritage language (HL) instruction. Readings discuss language teaching topics as def-initions of HLLs and HLLs; linguistic, demographic, documen-tation, and sociocultural profile of HLLs, particularly HL groups most represented among UCLAL student body and instructor attitudes toward HLLs; impact of student motivation and expectations on HL curriculum and teaching approaches; similarities and differences between HLLs and foreign language learners; teaching methods for source colonies and materials; diagnostic testing and needs analysis; use of oral/aural proficiency as springboard for literacy instruction; optimization of instruction of mixed HL and FL classes. Application of approaches to nonresident HLL instruction. Concurrently scheduled with course CM124. S/U or letter grading.

CM230A–CM230B. Seminar: Theoretical Topics in East Asian Literature. (4–4) Seminar, three hours. Preparation: reading knowledge of at least one East Asian lan-guage. Concerns of literary theory that are brought to fore by reading of literary works from or about East Asia. Readings from both Western and East Asian theorists; issues of translation, comparison, and categorization. In Progress (230A) and letter (230B) grading.

CM240A–CM240B. Seminar: Topics in East Asian Literary History. (4–4) Seminar, three hours. Preparation: reading knowledge of at least one East Asian lan-guage. Critical issues common to literary historiography in East Asia, including periodization, canon, ide-ology, interaction between high and low culture, written and oral texts, etc. In Progress (240A) and letter (240B) grading.


245A-245B. Seminar: Position of Modernity in East Asian Literature. (4–4) Seminar, three hours. Preparation: at least five years of one East Asian language. Designed for graduate students. Course 245A concerned with conceptual architecture and archaeology of modernity, with focus from Euro-pean sources. In-class debate probes relevance of these readings for work as Asianists. Focus on Asian writings in course 245B. In Progress (245A) and letter (245B) grading.

255. Topics in Southeast Asian Literature and/or Cinema. (4) Seminar, three hours. Knowledge of one Southeast Asian language recommended but not re-quired. Theoretical concerns raised by works from Southeast Asia, one Southeast Asian nation, and/or Southeast Asian diasporas. Critical and historical ex-amination of literary and/or film representations con-nected to practices of empire, nation, diaspora, and globalization. May be repeated for credit. S/U or letter grading.


265A–265B. Seminar: Selected Topics in Buddhist Studies. (4–4) Seminar, three hours. Coverage varies. May be repeated for credit. In Progress (265A) and letter (265B) grading.


281A–281B. Field Methods for Study of East Asian Oral Traditions. (4–4) Seminar, three hours. Description and evaluation of modern approaches to col-lecting and documenting oral tradition as text, perfor-mance, and sociocultural event, providing hands-on experience in fieldwork and archiving methods. Con-sideration of approaches ranging from written tran-scription and textualization to audio and video presen-tations. In Progress (281A) and S/U or letter (281B) grading.


293. Graduate Student Colloquium. (4) Research group meeting, three hours. Designed to provide graduate students in Asian Studies an opportunity to present their research to other students and faculty members. S/U grading.
297. Life Writing in East Asia. (4) Seminar; three hours. Readings of biography and autobiography as elements of East Asian cultural traditions, with focus rotating between China, Japan, and Korea. Readings in English and relevant East Asian languages. Letter grading.

299. Independent Study. (2 to 6) Tutorial, to be arranged. Designed for graduate students. Guided research and writing of research paper. May be repeated, but only 4 units may be applied toward MA degree. May not be applied toward PhD degree. S/U or letter grading.

301. Teaching East Asian Language as Foreign Language. (4) Lecture, four hours. S/U or letter grading.

375. Teaching Apprentice Practicum. (1 to 4) Seminar, to be arranged. Preparation: apprentice personnel employment as teaching assistant, associate, or fellow. Teaching apprenticeship under active guidance and supervision of regular faculty member responsible for curriculum and instruction at UCLA. May be repeated for credit. S/U grading.

495. Teaching Asian Languages at College Level. (3) (Seminar, three hours. Preparation: appointment as teaching assistant in East Asian languages and cultures. Study in team-teaching, teaching methodology, developing course materials, and testing. Participation in peer review and workshops required. Students receive unit credit toward full-time equivalence but not toward any degree requirements. S/U grading.

495C. Computer Technologies for Teaching College-Level Chinese. (2) Lecture, two hours. Intended for current or potential teaching assistants in Chinese. Introduction to tools and technology designed to enrich classroom learning, help effectively manage student records, and expose students to current computer software and web resources. May not be applied toward degree requirements. S/U grading.

495E. Computer Technologies for Teaching College-Level East Asian Languages. (2) Lecture, two hours. Intended for current or potential teaching assistants in East Asian languages. Introduction to tools and technology designed to enrich classroom learning, help effectively manage student records, and expose students to current computer software and web resources. May not be applied toward degree requirements. S/U grading.

495J. Computer Technologies for Teaching College-Level Korean. (2) Lecture, two hours. Intended for current or potential teaching assistants in Korean. Introduction to tools and technology designed to enrich classroom learning, help effectively manage student records, and expose students to current computer software and web resources. May not be applied toward degree requirements. S/U grading.

496K. Computer Technologies for Teaching College-Level East Asian Languages. (2) Lecture, two hours. Intended for current or potential teaching assistants in East Asian languages and cultures or South and Southeast Asian languages and cultures. Study in team-teaching, teaching methodology, developing course materials, and testing. Participation in peer review and workshops required. Students receive unit credit toward full-time equivalence but not toward any degree requirements. S/U grading.

Chinese

Lower-Division Courses

1. Elementary Modern Chinese. (5) Lecture, two hours; discussion, three hours. Requisite: permission of instructor. Intended for students who have learned, from whatever source, enough Chinese to qualify for more advanced courses. Introduction to fundamentals of standard Chinese, including pronunciation, grammar, and Chinese characters, with emphasis on all four basic language skills—speaking, listening comprehension, reading, and writing. P/NP or letter grading.

2. Elementary Chinese for Advanced Beginners. (5) Lecture, two hours; discussion, three hours. Recommended preparation: ability to speak and understand Mandarin or other Chinese dialects at elementary levels. Not open to students who have learned, from whatever source, enough Chinese to qualify for more advanced courses. Designed for students who already have certain listening and speaking skills in Mandarin or other Chinese dialects at elementary levels. May not be applied toward any degree requirements. S/U or letter grading.

2A. Elementary Modern Chinese for Advanced Beginners. (5) Lecture, two hours; discussion, three hours. Enforced requisite: course 1 with grade of C or better or Chinese placement test. P/NP or letter grading.

2C. Mandarin for Cantonese Speakers. (5) Lecture, three hours; discussion, one hour. Requisite: course 2A with grade of C or better or Chinese placement test. Second-year Chinese. Not open to students who have learned, from whatever source, enough Chinese to qualify for more advanced courses. Continuation of course 2A. P/NP or letter grading.

2D. Intermediate Modern Chinese. (5) Lecture, two hours; discussion, three hours. Enforced requisite: course 1A with grade of C or better or Chinese placement test. Second-year Chinese. Not open to students who have learned, from whatever source, enough Chinese to qualify for more advanced courses. Continuation of course 2A. P/NP or letter grading.

5. Intermediate Modern Chinese. (5) Lecture, three hours; discussion, two hours. Requisite: course 4 with grade of C or better or Chinese placement test. Second-year Chinese. Not open to students who have learned, from whatever source, enough Chinese to qualify for more advanced courses. Continuation of course 4. P/NP or letter grading.

5A. Intermediate Modern Chinese for Advanced Students. (5) Lecture, three hours; discussion, two hours. Requisite: course 4A with grade of C or better or Chinese placement test. Second-year Chinese. Not open to students who have learned, from whatever source, enough Chinese to qualify for more advanced courses. Continuation of course 4A. P/NP or letter grading.

5C. Mandarin for Cantonese Speakers. (5) Lecture, four hours. Enforced requisite: course 5C or Chinese placement test. Designed for students who are Cantonese speakers and familiar with Chinese characters and who need to improve their pronunciation of standard Mandarin dialect. P/NP or letter grading.

6. Intermediate Modern Chinese. (5) Lecture, three hours; discussion, two hours. Requisite: course 5 with grade of C or better or Chinese placement test. Second-year Chinese. Not open to students who have learned, from whatever source, enough Chinese to qualify for more advanced courses. Continuation of course 5. P/NP or letter grading.

6A. Intermediate Modern Chinese for Advanced Students. (5) Lecture, three hours; discussion, two hours. Requisite: course 5A with grade of C or better or Chinese placement test. Second-year Chinese. Not open to students who have learned, from whatever source, enough Chinese to qualify for more advanced courses. Continuation of course 5A. P/NP or letter grading.

6C. Mandarin for Cantonese Speakers. (5) Lecture, four hours. Enforced requisite: course 5C or Chinese placement test. Designed for students who are Cantonese speakers and familiar with Chinese characters and who need to improve their pronunciation of standard Mandarin dialect. P/NP or letter grading.

8. Elementary Chinese: Intensive. (15) Lecture, 10 hours; discussion, 10 hours. Not open to students who have learned, from whatever source, enough Chinese. Intensive course equivalent to courses 1, 2, and 3. Introduction to fundamentals of standard Chinese, including pronunciation, grammar, and Chinese characters, with emphasis on all four basic language skills—speaking, listening comprehension, reading, and writing. Offered in summer only. P/NP or letter grading.

10. Intermediate Modern Chinese: Intensive. (15) Lecture, 10 hours; discussion, 10 hours. Requisite: course 7 with grade of C or better or Chinese placement test or courses equivalent to elementary-level Chinese. Second-year Chinese. Not open to students who have learned, from whatever source, enough Chinese to qualify for more advanced courses. Continuation of course 8. P/NP or letter grading.

10A. Elementary Modern Chinese for Advanced Students: Intensive. (15) Lecture, 10 hours; discussion, 10 hours. Intensive course equivalent to courses 1A, 2A, and 3A. Designed for students who already have some listening and speaking skills in Mandarin Chinese but do not have any reading and writing skills and for students who speak Chinese dialect other than Mandarin at home and have some knowledge of Chinese characters (i.e., can read some basic Chinese characters). Coverage of listening, reading, and writing skills. Offered in summer only. P/NP or letter grading.
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101A-101B-101C. Advanced Readings in Modern Chinese. (4-4-4) For courses 101A, 101B: lecture, two hours; discussion, two hours; for course 101C: lecture, three hours; discussion, one hour. Requisite for courses 101A, 101B: course 100C or 100F or 101L or Chinese placement test. Not open to students who have previously taken Chinese placement test 101B or Chinese placement test. Not open to students who have learned, from whatever source, enough Chinese to qualify for more advanced courses. Advanced reading and discussion for research in Chinese. May be repeated for credit. P/ NP or letter grading.

102A. Advanced Chinese for International Business. (4) Lecture, three hours; discussion, one hour. Requisite: course 6 or 10 with grade C or better or Chinese placement test. Honors content noted on transcript. P/ NP or letter grading (101C) and letter grading (101A, 101B).

102B. Advanced Chinese for International Business. (4) Lecture, three hours; discussion, one hour. Requisite: course 6 or 10 with grade C or better or Chinese placement test. Honors content noted on transcript. P/ NP or letter grading (101C) and letter grading (101A, 101B).

103. Topics in Chinese Language and Culture. (4) Lecture, two hours; discussion, two hours. Requisite preparation: one or two years of college-level Chinese. Chinese language and culture for special purposes. Introduction to interdependent relationship between Chinese language and culture. Introduction to basic concepts in sociocultural linguistics, discourse analysis, and technology to analyze Chinese language and culture, which are conventionally through oral and non-verbal linguistic devices. Major coverage on language use as reflected in various types of media: film, television, Internet, advertisement, etc. May be repeated for credit. P/ NP grading.

105A-105B. Advanced Chinese Rhetoric and Critical Thinking. (4-4) Lecture, three hours; discussion, two hours. Requisite: Chinese placement test. Designed for students who have completed secondary education or equivalent in Chinese. Focus on developing sophisticated Chinese rhetorical strategies in speaking and writing and critical thinking skills through use of Chinese language. Chinese texts and multimedia materials used as basis for improving speaking, listening, and understanding of contemporary topics in Chinese language, culture, and society. Each course may be taken independently for credit. Letter grading.
C240. Letter grading.
cultural practices. Concurrently scheduled with course
major structural features, language in society and in
writing system and its reform, regional differences,
Chinese. Introduction to Chinese sound system,
ture, three hours; discussion, one hour. Recom-
readings in selected premodern texts. P/NP or letter

110A-110B-110C. Introduction to Classical Chi-
ese. (4–4–4) Lecture, three hours; discussion, one hour.
Enforced requisite: course 3 or Chinese place-
ment test. Concurrently scheduled with course C250A to
which is enforced requisite to 110C. Grammar and
readings in selected premodern texts. P/NP or letter
graduating. 

C120. Introduction to Chinese Linguistics, (4) Lec-
ture, three hours; discussion, one hour. Recom-
mended preparation: one to two years of college-level
Chinese. Introduction to Chinese sound system, writing system and its reform, regional differences,
major structural features, language in society and in
cultural practices. Concurrently scheduled with course
C240. Letter grading.

124. Taiwanese Language and Culture. (4) Lecture,
two hours; discussion, one hour. Enforced requisite:
course 3 or 8 or Chinese placement test. Taiyuan, or Tai-
wanese (also known as Minnan, Hoklo, or Hokkien,
depending on context or region), is language that
most Taiwanese people use in daily lives, including ev-
everyday interaction and communication, entertainment,
social and cultural events, etc. Examination of various
manifestations of Taiyuan in different forms of cultural
production, including in film, television series, popular
music, animation, Orchestral music, opera, puppetry, and
other media. Discussion also of how these media have represented Taiwan's society and shaped its cultural
landscape. P/NP or letter grading.

130A-130B. Readings in Modern Chinese Litera-
ture. (4–4) Lecture, three hours; discussion, one hour.
Enforced requisite: course 100B or Chinese place-
ment test. Readings and discussions of works of modern Chinese literature. Each course may be taken independently for credit. Letter grading.

131. World Sinophone Literature: Theories and
Texts. (4) Lecture, two hours; discussion, one hour. Readings in Sinophone as analytic category for literature written in Sin-
itic languages. Theories of Sinophone and literary texts from Taiwan, Hong Kong, Malaysia, China, and elsewhere. Concurrently scheduled with course C175. Letter grading.

135. Chinese-Language Film and Culture. (4) Lec-
ture, two hours; discussion, one hour; film viewing, three
hours. Enforced requisite: course 100C or 100I
or Chinese placement test. Viewing and discussion of Chinese films, along with relevant readings in Chinese.
Letter grading.

C138. Travel Writing in Premodern China. (4) Lec-
ture, three hours; discussion, one hour. Recom-
mended preparation: course 50. Exploration of travel
writing in China, with focus on English translations of
works by native writers and by foreign visitors through
centuries. Concurrently scheduled with course C238. Letter grading.

C139. Contemporary China. (4) Lecture, three hours;
discussion, one hour. Recommended preparation: course
50. Interdisciplinary survey of historic and literary gar-
ders in China, with focus on English translations of
texts by native writers and recent Western scholar-
ship. Letter grading.

140A-140D. Readings in Classical Chinese Litera-
ture. (4 each) Lecture, three hours. Enforced requi-
site: course 110C. Advanced classical Chinese. Read-
ing and discussion of modern Chinese literature.
Each course may be taken independently for credit.
Letter grading. 140A. Poetry; 140B. Prose;
140C. Fiction; 140D. Philosophical Texts.

C144. Translations, Readings in Modern Chinese
Texts. (4) Lecture, three hours; discussion, one hour.
Preparation: bilingual competency in Chinese and En-
glish. Workshop on Chinese-English literary transla-
tion, designed to improve translation skills.
Focus on close readings and analysis of original texts
against published English translations and actual translation work. May include interpretation segment,
designed to improve students' ability to translate and

C150A. Lyrical Traditions. (4) Lecture, three hours;
discussion, one hour, Knowledge of Chinese not re-
quired. Readings in English translation of poetic and
critical writings of traditional China, with emphasis on
development of subjectivity and modes of address.
Concurrently scheduled with course C250A. P/NP or letter
graduating. 

C150B. Chinese Literature in Translation: Tradition-
al Narrative and Fiction. (4) (Formerly numbered
150BC). Lecture, three hours; discussion, one hour.
Knowledge of Chinese not required. Examination of
formation and development of Chinese narrative tradi-
tions from Tang to Ming-Qing periods (7th–18th centu-
ries). Readings from biographical writings, fiction,
drama, legal cases, etc., with emphasis on different
narrative conventions and their cultural assumptions and
intersections. Exploration of important issues in
context of imperial China, including order and chaos,
self and other, desire and transcendence, gender
norms and transgression, violence and justice. May be
taken independently for credit. Concurrently sched-
uled with course C250B. Letter grading.

151. Chinese Literature in Translation: Modern Lit-
erature. (4) Lecture, three hours; discussion, one hour.
Required: English Composition 3 or 3H or one
course from Comparative Literature 1A, 1B, 1C, 1D.
Knowledge of Chinese not required. Lectures and
reading of representative works from 1900 to present
in English translation. Letter grading. Concurrently
scheduled with course C250B. Letter grading.

152. Topics in Contemporary Chinese Literature
and Culture. (4) Lecture, two hours; discussion, one hour.
Knowledge of Chinese not required. Investiga-
tion of various topics in contemporary Chinese litera-
ture and culture, including politics and theories of Chi-
inese postmodernism, nationalism, feminism, mass cul-
ture, and media. Letter grading.

M153. Chinese Immigrant Literature and Film. (4) (Same as Asian American Studies M151B and Com-
parative Literature M171.) Lecture, three hours;
discussion, one hour. Knowledge of Chinese not re-
quired. In-depth look at Chinese immigrant experience
by reading literature and watching films. Theories of
diaspora, gender, and race to inform thinking and
discussion of relevant issues. P/NP or letter grading.

154. Introduction to Chinese Cinema. (4) Lecture,
two hours; discussion, one hour; film viewing, three
hours. Knowledge of Chinese not required. History of
Chinese-language cinemas, with emphasis on main-
land China. Examination of film style and aesthetics,
as well as contexts of industry, economics, politics,
culture, and society. May not be repeated for credit.
Letter grading.

155. Topics in Chinese Cinema. (4) Lecture,
two hours; discussion, one hour; film viewing, three
hours. Knowledge of Chinese not required. Critical study of films from modern China, including
Chinese diaspora. Examination of aesthetics, genres, directors and stars, other arts and media, and cultural and polit-
ical histories. May be repeated for credit with topic change. P/NP or letter grading.

156. Variable Topics in Culture and Society in Tai-
wan. (4) Lecture, three hours; discussion, one hour.
Designed for seniors. Knowledge of Chinese not re-
quired. Examination of relationship between culture
and society in Taiwan. Reading, audio and visual materials, discussion, and develop-
ment of culminating project. May be repeated for
credit with topic change. Concurrently scheduled with course C257. Letter grading.

157. Contemporary Chinese Popular Culture. (4) Lecture, three hours; discussion, one hour. Examina-
tion of various aspects of modern and contemporary
cultural practices in China, Taiwan, and Hong Kong from
the perspectives of media, visual culture, music, perf-
ance, film, television, radio, pop music, visual arts,
fashion, and advertising. P/NP or letter grading.

C160. Chinese Buddhism. (4) (Same as Religion
M161A.) Lecture, three hours; discussion, one hour.
Knowledge of Chinese not required. Introduction and
development of Buddhism in China, interaction be-
tween Buddhism and Chinese culture, rise of Chinese

165. Introduction to Chinese Buddhist Texts. (4) Lecture, three hours; discussion, one hour. Recom-
mended requisite: course 100A or 110B or Japanese
110A or Korean 100A or Chinese placement test. Readings in premodern Buddhist texts written in lit-

erary Chinese and taken from translated Indian sutras,
indigenous exegetical materials, Chinese mandarin
scriptures, and Ch'an writings. Problems in translation
from Indo-European languages into Chinese; evolution
of Chinese Buddhist terminology. Coverage varies.
May be repeated for credit with consent of instructor.

174. Chinese Strategic Thought. (4) Lecture,
two hours; discussion, one hour. Knowledge of Chinese
not required. Introduction to early Chinese narratives
and theories of military, diplomatic, and rhetorical
strategy. Letter grading.

175. Introduction to Chinese Thought. (4) Lec-
ture, three hours; discussion, one hour. Knowledge of
Chinese not required. Survey of Chinese thought as
represented in texts of Zhou and Han periods (circa
1000 to 100 BCE), with focus on inven-
tion of Confucian tradition (including Five Classics) and on defenses of that tradition against challenges from Mo-
ists, Taoists, and other schools of thought. Concurrently
scheduled with course C275. Letter grading.

175SL. Community-Based Introduction to Chinese
Thought. (4) Seminar, three hours; fieldwork, two
hours. Knowledge of Chinese not required. Commu-
nity-based survey of Chinese thought as represented
in texts of Zhou through Han periods (circa 1000 to
100 BCE), with focus on invention of Confucian tradi-
tion (including Five Classics) and on defenses of that
tradition against challenges from Mohists, Taoists, and
other groups of thinkers. The service learning component
includes meaningful work with community partners,
such as local schools, selected in advance by in-
structor. Letter grading.

176. Neo-Confucianism. (4) Lecture, three hours;
discussion, one hour. Knowledge of Chinese not re-
quired. Examination of movement to revitalize and re-
interpret teachings of Confucius during Tang, Song,
Yuan, and Ming dynasties, with consideration of both
Neo-Confucian philosophy and social action. Letter
grading.

180. Chinese Mythology and Supernatural. (4) Lec-
ture, three hours; discussion, one hour. Knowledge of
Chinese not required. Survey of corpus of traditional
Chinese mythology, with focus on examples pre-
served in various of early texts, later evolutions in dra-
ma, oral fiction, and works, and evidence from visual
arts. Letter grading.
180. Archaeology of Early Global Trade and Piracy. (4) Lecture, three hours; discussion, one hour. Exploration of role of trade and piracy at threshold of global-ization (13th to 17th century), with focus on continuity and transformation in Asian trade network in re- sponse to early global trade. Investigation based on archaeological study of porcelain, tracing movement from kilns around Chinese trading ports to shipwrecks and consumer societies in Southeast Asia and colonial America. Important commodities included trans-Pacific voyages, close association of porcelain trade and production with international piracy in traditional historiography. Provides new angle for understand- ing dynamics of early global trade and indus- tries. Letter grading.

183. Archaeological Landscapes of China. (4) (Same as Anthropology M118R.) Lecture, three hours; discussion, one hour (when scheduled). Descheduled space images from Cold War era and open remote sensing data of 21st century provide new opportuni-ties for studying landscape transformation in historical China. Combines lectures, library research, and hands-on analysis of archaeological sites on satellite images, investigation of changing historical and ar-chaeological landscape in China during last 5,000 years. Aims to cover various scales, from emergence of early cities to rise of metropolitan centers and formation of imperial landscapes. P/N/P or letter grading.


197. Individual Studies in Chinese. (4) Tutorial, to be arranged. Limited to juniors/seniors and graduate stu-dents who desire more advanced or specialized in-struction in Chinese. Individual intensive study, with scheduled meetings to be arranged between faculty and student. Evidence of mastery of subject matter required. May be repeated for credit. Individual contract required; see undergraduate adviser. P/N/P or letter grading.

Graduate Courses

200A. Research Methods in Chinese. (4) Seminar, three hours. Preparation: reading C121 and C122. Cases and discussions designed to develop basic skills in using traditional Chinese research materials. Topics include classical dictionaries; sinological indices; bibliograph-ical, biographical, and genealogical sources; encyclo-pedias; anthologies; rare editions; illustrated matter and calligraphy. Letter grading.

200B. Preseminar: Premodern Chinese Literature. (4) Seminar, three hours. Introduction to major bibli-o graphical and methodological resources in field of premodern Chinese literature, with focus on research tools in field and on scholarship in English on major lit-erary genres, periods, and authors. Letter grading.

200C. Preseminar: Modern Chinese Literature and Cinema. (4) Seminar, three hours. Introduction to major bibliographical and methodological resources in fields of modern Chinese literature and cinematic studies, with focus on theoretical tools, historical, and critical trends. Letter grading.


207A-C207B. Academic/Professional Chinese. (4–4) Lecture, three hours; discussion, one hour. En-forceful requisite: course 101B or Chinese placement test. Intended to improve reading and writing skills in specific academic and professional subject areas for students who have studied general Chinese at ad-vanced level, with coverage in Chinese humanities and social sciences, science and technology, medi-cine, and applied linguistics. Concurrently scheduled with courses C107A-C107B. S/U or letter grading.

209. Issues in Sinophone Literature. (4) Seminar, three hours. Exploration of selected topics and issues in Sinophone literature, literature written in Sinitic lan-guages by ethnic Chinese communities in China, and litera-ture written by those living outside China across world, especially in Malaysia, Taiwan, Singapore, and the U.S. S/U or letter grading.


211A-211B. Seminars: Classical Chinese Poetry. (4–4) Seminar, three hours. Preparation: reading knowledge of the major genres. Topics rotate among major poetic traditions and chronological periods. Emphasis on philological, critical, and historical ap-proaches. May be repeated for credit with consent of instructor. In Progress (211A) and letter (211B) grading.

212. Topics in Chinese Poetry. (4) Readings/discus-sion, three hours. Selected readings from classical poe-tic tradition, with focus on individual poets, themes, or other critical issues. May be repeated for credit with consent of instructor. Letter grading.

213A-213B. Chinese—Language Competencies. (4–4) Seminar, three hours; film-viewing laboratory, two hours. Advanced topics in Chinese-language cin-ema. Examination of theory and methodology, histo-riography, industry and institutions, style and aes-thetics, major genres and artists, other arts and media, other cinematic traditions, and social contexts. May be repeated for credit with consent of instructor. In Progress (213A) and letter (213B) grading.

220A-220B. Theoretical Approaches to Chinese and Sinophone Cultures. (4–4) Seminar, three hours. Discussions to be framed by Western literary and cul-tural theory, investigating how both history and imita-tions Western theory may pose for Chinese literary and cultural studies. Specific topics vary from year to year. In Progress (220A) and letter (220B) grading.

224A-224B. Seminars: Selected Topics in Chinese Linguistics. (4–4) Seminar, three hours. Critical reading and discussion of selected topics in Chinese functional linguistics (discourse and grammar, corpus linguistics, sociolinguistics, language change). May be repeated for credit with consent of instructor. In Prog-ress (224A) and letter (224B) grading.


230A-230B. Seminars: Selected Topics in Modern Chinese Literature. (4–4) Seminar, three hours. Selected readings in 20th-century Chinese literature, em-phasizing fiction. Discussion of individual research projects. May be repeated for credit. In Progress (230A) and letter (230B) grading.

238. Travel Writing in Premodern China. (4) Lec-ture, three hours; discussion, one hour. Recommended preparation: course in travel writing in China, with focus on English translations of works by native writers and by foreign visitors through centuries. Concurrently scheduled with course C138. Letter grading.

240. Introduction to Chinese Linguistics. (4) Le-cure, three hours; discussion, one hour. Recommended preparation: one to two years of college-level Chinese. Introduction to Chinese sound system, writing system and its reform, regional differences, major structural features, language in society and in cultural practices. Concurrently scheduled with course C120. Letter grading.

241A-241B. Heaven, Earth, and Monarchy in An-cient China. (4–4) Seminar, three hours. Preparation: working knowledge of classical Chinese. Close reading of chapters from Han dynasty collection of writings on forms of music, social interaction, educa-tion, marriage, and mourning in Zhou period, with discussion of topics in recent cultural semiotics and anthropology. In Progress (241A) and letter (241B) grading.

242A-242B. Chinese Classics and Exegetical Trad-itions. (4–4) Seminar, three hours. Recommended preparation: command of literary Chinese. Reading and discussions of selections from one traditional Chi-nese text in Chinese (Confucian classics, others), with introduction to exegetical history, secondary scholar-
155. Topics in Filipino Cinema and Literature. (4) Lecture, three hours; discussion, one hour. Knowledge of Filipino not required. Critical analysis of language and culture, history, and sociopolitical issues as represented in Filipino films and/or literature. May be repeated once for credit. P/N or letter grading.

189. Advanced Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to undergraduate lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/N or letter grading.

189HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to lower-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/N or letter grading.

100A-100B-100C. Intermediate Hindi-Urdu. (4–4–4) Lecture, two hours; discussion, two hours; discussion, three hours. Enforced requisite: course 3 with grade of C or better. Course 100A with grade of C or better is requisite to 100B; course 100B with grade of C or better is requisite to 100C. Reinforcement of basic Hindi grammar and coverage of more advanced topics. Broadening of skills in conversation and composition; reading of selected texts. P/N or letter grading.

109. Advanced Tutorial Instruction in Hindi-Urdu. (2) Tutorial, two hours. Requisite: course 6 or Hindi-Urdu placement test. Tutorial and guided independent study to help students develop advanced proficiency in oral and written Hindi-Urdu. May be repeated for credit. P/N or letter grading.

189. Advanced Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to undergraduate lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/N or letter grading.

189HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to upper-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/N or letter grading.

189. Advanced Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to lower-division lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/N or letter grading.

98. Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to lower-division lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be repeated for credit. P/N or letter grading.

89HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to lower-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be repeated for credit. P/N or letter grading.

89. Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to lower-division lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be repeated for credit. P/N or letter grading.

1A. Elementary Modern Japanese. (5) Lecture, two hours; discussion, two hours. Not open to students who have learned, from whatever source, enough Japanese to qualify for more advanced courses. Introduction to modern Japanese with attention to conversation, grammar, and written forms. Conversation drill based on material covered in class. P/N or letter grading.

1. Introductory Hindi-Urdu. (5) Lecture, two hours; discussion, three hours. Coverage of basic Hindi grammar, with equal emphasis on reading, writing, conversation, and comprehension. P/N or letter grading.

2. Introductory Hindi-Urdu. (5) Lecture, two hours; discussion, three hours. Enforced requisite: course 1 with grade of C or better. Coverage of basic Hindi grammar, with equal emphasis on reading, writing, conversation, and comprehension. P/N or letter grading.

3R. Elementary Hindi-Urdu Reading and Writing. (5) Lecture, five hours. Recommended preparation: speaking and listening skills in Hindi-Urdu. Training in reading and writing skills at elementary level, equivalent to completion of one year of Hindi. P/N or letter grading.

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/N or letter grading.

89HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to lower-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/N or letter grading.

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Hindi-Urdu

Lower-Division Courses

1. Introductory Hindi-Urdu. (5) Lecture, two hours; discussion, three hours. Coverage of basic Hindi grammar, with equal emphasis on reading, writing, conversation, and comprehension. P/N or letter grading.

2. Introductory Hindi-Urdu. (5) Lecture, two hours; discussion, three hours. Enforced requisite: course 1 with grade of C or better. Coverage of basic Hindi grammar, with equal emphasis on reading, writing, conversation, and comprehension. P/N or letter grading.

3. Introductory Hindi-Urdu. (5) Lecture, two hours; discussion, three hours. Enforced requisite: course 2 with grade of C or better. Coverage of basic Hindi grammar, with equal emphasis on reading, writing, conversation, and comprehension. P/N or letter grading.

3R. Elementary Hindi-Urdu Reading and Writing. (5) Lecture, five hours. Recommended preparation: speaking and listening skills in Hindi-Urdu. Training in reading and writing skills at elementary level, equivalent to completion of one year of Hindi. P/N or letter grading.

2. Introductory Indonesian. (5) Lecture, three hours; discussion, two hours. Not open to students who have learned enough Indonesian to qualify for more advanced courses. Coverage of basic Indonesian grammar, with equal emphasis on reading, writing, listening, and speaking skills. P/N or letter grading.

2. Introductory Indonesian. (5) Lecture, three hours; discussion, two hours. Requisite: course 1 with grade of C or better. Not open to students who have learned enough Indonesian to qualify for more advanced courses. Coverage of basic Indonesian grammar, with equal emphasis on reading, writing, listening, and speaking skills. P/N or letter grading.

3. Introductory Indonesian. (5) Lecture, three hours; discussion, two hours. Requisite: course 2 with grade of C or better. Not open to students who have learned enough Indonesian to qualify for more advanced courses. Coverage of basic Indonesian grammar, with equal emphasis on reading, writing, listening, and speaking skills. P/N or letter grading.

4. Intermediate Indonesian. (5) Lecture, five hours. Designed to expand language skills acquired in introductory courses and to equip students with good command of communicative competence in Indonesian. P/N or letter grading.

5. Intermediate Indonesian. (5) Lecture, five hours. Enforced requisite: course 4 with grade of C or better. Designed to expand language skills acquired in introductory courses and to equip students with good command of communicative competence in Indonesian. P/N or letter grading.

6. Intermediate Indonesian. (5) Lecture, five hours. Enforced requisite: course 5 with grade of C or better. Designed to expand language skills acquired in introductory courses and to equip students with good command of communicative competence in Indonesian. P/N or letter grading.

Japanese

Lower-Division Courses

1. Elementary Modern Japanese. (5) Lecture, two hours; discussion, three hours. Not open to students who have learned, from whatever source, enough Japanese to qualify for more advanced courses. Introduction to modern Japanese with attention to conversation, grammar, and written forms. Conversation drill based on material covered in class. P/N or letter grading.

2. Introductory Indonesian. (5) Lecture, two hours; discussion, two hours. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/N or letter grading.

Upper-Division Courses

100A-100B-100C. Intermediate Hindi-Urdu. (4–4–4) Lecture, two hours; discussion, two hours; discussion, three hours. Enforced requisite: course 3 with grade of C or better. Course 100A with grade of C or better is requisite to 100B; course 100B with grade of C or better is requisite to 100C. Reinforcement of basic Hindi grammar and coverage of more advanced topics. Broadening of skills in conversation and composition; reading of selected texts. P/N or letter grading.

109. Advanced Tutorial Instruction in Hindi-Urdu. (2) Tutorial, two hours. Requisite: course 6 or Hindi-Urdu placement test. Tutorial and guided independent study to help students develop advanced proficiency in oral and written Hindi-Urdu. May be repeated for credit. P/N or letter grading.

189. Advanced Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to undergraduate lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/N or letter grading.

98. Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to lower-division lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be repeated for credit. P/N or letter grading.

89HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to lower-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be repeated for credit. P/N or letter grading.

89. Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to lower-division lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be repeated for credit. P/N or letter grading.

1. Introductory Indonesian. (5) Lecture, two hours; discussion, two hours. Not open to students who have learned enough Indonesian to qualify for more advanced courses. Coverage of basic Indonesian grammar, with equal emphasis on reading, writing, listening, and speaking skills. P/N or letter grading.

1A. Elementary Modern Japanese for Kanji Native Students. (5) Lecture, two hours; discussion, two hours. Not open to students who have learned, from whatever source, enough Japanese to qualify for more advanced courses. Introduction to modern Japanese with attention to conversation, grammar, and written forms. Conversation drill based on material covered in class. P/N or letter grading.

51. History of Japanese: Literature and Film. (6) Lecture, three hours; discussion, one hour. Knowledge of Japanese culture, literature, or language not required. Introduction to visual and textual images of Japan's literary heritage, including documentary and feature films based on Japan's literary classics. Letter grading.

52. Anime. (5) Lecture, three hours; discussion, one hour. Discussion and analysis of seminal works of Japanese animation, from the early 1990s to present. Engagement with works in variety of styles, and that deal with broad range of themes. Reading and discussion of recent scholarship on anime produced by scholars working in diverse modes, from philosophical to anthropological. Letter grading.

50. How Does It Move? Action and Moving Image in Modern Japan. (5) Lecture, four hours; discussion, one hour. How is action constituted on the screen? How has technological media informed and transformed our experience and understanding of action? Exploration of how our experience and conception of action is mediated by technological advancement, media, representation, and the narrative form of action. Emphasis on moving image practices surrounding production and reception of popular action film genres from traditional samurai film to cinematic Japanese and yakuza film. Consideration also of their relationship to international film cultures and genres (e.g., Hollywood Western, gangster film, Chinese martial arts cinema, and contemporary Hollywood blockbusters) in context of broader historical transformations in media practices and in modes of distribution and reception. Study of theoretical debates, institutional practices, and ethical, political, and social issues that our inquiries into moving image action, and into action as/through moving image, P/NP or letter grading.

89. Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to lower-division lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript, P/NP or letter grading.

89HC. Honors Contracts. (1) Tutorial, three hours. Limited to College Honors Program. Designed as adjunct to lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

99. Student Research Program. (1 to 2) Supervised research or other scholarly work, three hours per week per unit. Entry-level research for lower-division students under guidance of faculty mentor. Students must be in good academic standing and enrolled in minimum of 12 units (excluding this course). Individual research contract required. Not open to undergraduate research. May be repeated. P/NP grading.

Upper-Division Courses

100A-100B-100C. Advanced Modern Japanese. (4–4–4) Lecture, three hours; discussion, two hours. Requisite: course 6 or 10 with grade of C or better. Japanese placement test is enforced requisite to 100B; course 100B with grade of C or better or Japanese placement test is enforced requisite to 100C. Not open to students who have learned, from whatever source, enough Japanese to qualify for more advanced courses. Learning Japanese language with emphasis on sociocultural issues of contemporary Japanese society. Materials selected from contemporary publications, videos, and audiotaquets. Reading with focus on linguistics features, writing summaries and opinions, oral activities, and project work. P/NP or letter grading.

100R. Third-Year Advanced Reading in Modern Japanese. (4) Lecture, three hours. Enforced requisite: course 6 or 10 with grade of C or better. Development of oral proficiency in kanji recognition and writing and Japanese vocabulary. Not open to students who have learned, from whatever source, enough Japanese to qualify for more advanced courses. May be taken concurrently with course 100A. Development of oral proficiency in reading advanced-level Japanese materials. Instruc- tion in understanding grammar and practical expres- sions, as well as expansion of kanji and vocabulary to achieve higher ability in comprehension of written ma- terials in Japanese. Translations from Japanese to En- glish, as well as from English to Japanese. P/NP or letter grading.

100S. Advanced Modern Japanese: Intensive. (12) Lecture, 10 hours; discussion, 10 hours. Enforced requisite: course 6 or 10 with grade of C or better or Japanese placement test. Not open to students who have learned, from whatever source, enough Japanese to qualify for more advanced courses. Intensive course equivalent to courses 100A, 100B, and 100C. Learning Japanese language with emphasis on socio- cultural issues of contemporary society. Materials selected from contemporary publications, videos, and audiotaquets. Reading with focus on lin- guistics features, writing summaries and opinions, oral activities, and project work. Offered in summer only: P/NP or letter grading.

101A. Kanji for Advanced Reading. (4) Lecture, three hours. Enforced requisite: course 100C or 100S with grade of C or better or Japanese placement test. Development of ability in kanji recognition and writing and cognate/Sino-Japanese vocabulary. Primarily for students who wish to solidify and enhance firm knowledge in kanji before engaging in advanced reading materials used in courses 101B and 101C. Consideration also of their relationship to historical transformations in media practices and in modes of distribution and reception. Study of theoretical debates, institutional practices, and ethical, political, and social issues that our inquiries into moving image action, and into action as/through moving image, P/NP or letter grading.

101B-101C. Fourth-Year Japanese: Advanced Reading I, II. (4–4) Lecture, three hours; discussion, one hour. Enforced requisite: course 100C or 100S with grade of C or better or Japanese placement test. Not open to students who have learned, from whatever source, enough Japanese to qualify for more advanced courses. Advanced readings and discussion for students planning to do advanced coursework or research on Japanese. Topics selected from magazines, journals, and books related to humanities and social sciences. May be repeated for credit. P/NP or letter grading.

101S. Fourth-Year Japanese: Advanced Reading—Intensive. (12) Lecture, 10 hours; discussion, 10 hours. Enforced requisite: course 100C or 100S with grade of C or better or Japanese placement test. Not open to students who have learned, from whatever source, enough Japanese to qualify for more advanced courses. Advanced readings and discussion for students planning to do advanced coursework or research on Japanese. Topics selected from magazines, journals, and books related to humanities and social sciences. Offered in summer only: P/NP or letter grading.

103A-103B-103C. Fourth-Year Japanese: Ad- vanced Speaking I, II, III. (4–4–4) Lecture, three hours; discussion, one hour. Enforced requisite: course 100C or 100S with grade of C or better or Japanese placement test. Not open to students who have learned, from whatever source, enough Japanese to qualify for more advanced courses. Advanced readings and discussion for students planning to do advanced coursework or research on Japanese. Topics selected from magazines, journals, and books related to humanities and social sciences. Offered in summer only: P/NP or letter grading.

104. Business Japanese. (4) Lecture, three hours; discussion, one hour. Enforced requisite: course 100C or 100S with grade of C or better or Japanese placement test. Designed to improve skills in Japanese in context of business transactions. To be successful business person, one must be equipped with ad-
specialized oral and written communication skills as well as high degree of cultural understanding. Oral and written business communication, social etiquette in business conduct, Japanese economic and business climate, business law and regulations, sources and environment, and business case studies. P/ NP or letter grading.

105A-105B. Advanced Reading and Writing for Japanese-Heritage Students. (4-4) Lecture, three hours; discussion, one hour. Enforced prerequisite: Placement test. Not open to students who have taken 100 series, 101 series, and/or 103 series courses or 104. Designed for advanced-level Japanese-heritage learners who are fluent in daily spoken Japanese. Emphasis on building vocabulary knowledge of Karyi, reading and writing, and honorific/humble style of Japanese. Each course may be taken independently for credit. P/NP or letter grading.

108FL. Special Studies: Readings in Japanese. (2) Seminar, two hours. Requisite: course 100C or 100S with grade of C or better or Japanese placement test. Students must be concurrently enrolled in affiliated main course. Additional work in Japanese to augment work assigned in main course, including reading, writing, and other exercises. May be repeated for credit. P/ NP or letter grading.

109. Advanced Tutorial Instruction in Japanese. (2) Tutorial, two hours. Enforced prerequisite: course 100C or 100S with grade of C or better or Japanese placement test. Tutorial and guided independent study to help students advance to superior proficiency in oral and written Japanese. May be repeated for credit. P/ NP or letter grading.

110A. Introduction to Classical Japanese: Basic Grammar. (3) Lecture, two hours; discussion, one hour. Enforced prerequisite: course 100C or 100S or Japanese placement test. Introduction to fundamentals of classical Japanese. Grammar and reading of selected premodern texts. P/NP or letter grading.

110B. Introduction to Classical Japanese: Reading Proficiency. (4) Lecture, three hours; discussion, one hour. Enforced prerequisite: course 110A. Grammar and readings of selected premodern texts. P/NP or letter grading.


1120. Introduction to Japanese Linguistics. (4) (Same as Linguistics M116.) Lecture, three hours; discussion, one hour. Enforced prerequisite: course 3 or 8 or Japanese placement test. Introduction to Japanese grammar and sociolinguistics through reading, discussion, and problem solving in phonology, syntax, semantics, and discourse pragmatics. Letter grading.


124. Language and Culture of Ryukyu/Okinawa. (4) Seminar; three hours. Requisite: course 6 or 10 or Japanese placement test. Research seminar with reading, discussion, literary analysis, and development of culminating project. Letter grading.


130A-130B-130C. Readings in Modern Japanese Literature. (4-4-4) Seminar, three hours. Enforced prerequisite: course 100C or 100S or Japanese placement test. Readings and discussion of works by modern Japanese writers. Each course may be taken independently for credit. Letter grading.


151. Japanese Literature in Translation: Modern. (4) Lecture, three hours; discussion, one hour. Requi- site: English Composition 3 or 3H or one course from Comparative Literature 1A, 1B, 1C, 1D. Knowledge of Japanese not required. Survey of Japanese literature of 16th century to post-World War II. P/NP or letter grading.

154. Postwar Japanese Culture through Literature. (4) Lecture, three hours; discussion, one hour. Requi- site: English Composition 3 or 3H or one course from Comparative Literature 1A, 1B, 1C, 1D. Knowledge of Japanese not required. Use of fiction and film to explore Japanese culture in postwar era in broad cross-disciplinary and cross-cultural context. P/NP or letter grading.


156. Literature and Technology. (4) (Same as Comparative Literature M176.) Lecture, three hours. Knowledge of Japanese not required. Examination of representation of technology in 20th-century fiction. Discussion of impact of technology on shifting images of gender, subjectivity, and national identity. P/NP or letter grading.


159. Variable Topics in Culture and Society in Japan. (4) Lecture, three hours; discussion, one hour. Knowledge of Japanese not required. Examination of relationship between culture (art, literature, film) and society in Japan. Reading, audio and visual material, discussion, and development of culminating project. May be repeated for credit with topic change. Concurrently scheduled with course C259. P/NP or letter grading.


161. Religious Life in Modern Japan. (4) Lecture, three hours; discussion, one hour. Knowledge of Japa- nese not required. Religious transformations accompanying rapid industrialization, urbanization, milita-
Graduate Courses


201A-201B. Introduction to Reading Japanese Academic Texts. (4–4) Lecture, three hours. Requisite: course 100A or 100B. Course 201A is requisite to 201B. Designed for graduate students. Introduction to modern reading of academic texts, both prewar and postwar, with focus only on reading; students who need to improve other skills should take additional courses. S/U or letter grading.


224A-224B. Seminars: Selected Topics in Japanese Discourse Linguistics. (4–4) Seminar, three hours. Requisite: course CM122. Critical reading and discussion of selected topics in Japanese discourse linguistics. May be repeated for credit with consent of instructor. In Progress (224A) and letter (224B) grading.

226. Survey of Functional Linguistics. (4) Lecture, four hours. Survey of recent empirical and theoretical research in several areas of functional linguistics, that has served as backbone for development of Japanese discourse linguistics. May be repeated for credit with consent of instructor. S/U or letter grading.


228. Fundamentals in Discourse Data Analysis. (4) Lecture, three hours. Designed to prepare students to conduct research in natural discourse data, both spoken and written, for linguistic analysis. Discussion of discourse taxonomy, data collection methodologies, data organization, analytical frameworks. Letter grading.

C231. Nation in Modern Japanese Intellectual Discourse. (4) Lecture, three hours. Enforced requisite: course 100C or 100S or Korean placement test. Reading of texts in original Japanese, with focus on late Taishō and early Showa periods. Various ways that nation (minzoku) was discussed in intellectual discourse of this period, particularly in relation to politics of imperialism. Concurrently scheduled with course C131. Letter grading.

235A-235B. Seminars: Selected Topics in Modern Japanese Fiction. (4–4) Seminar, three hours. May be repeated for credit with consent of instructor. In Progress (235A) and letter (235B) grading.

240A-240B. Seminars: Selected Topics in Japanese Literature. (4–4) Seminar, three hours. May be repeated for credit. In Progress (240A) and letter (240B) grading.

241A-241B. Seminars: Japanese Classics. (4–4) Seminar, three hours. Prose and poetry from early times to 1868. May be repeated for credit with consent of instructor. In Progress (241A) and letter (241B) grading.


C259. Variable Topics in Culture and Society in Japan. (4) Lecture, three hours; discussion, one hour. Examination of relationship between culture (art, literature, film) and society in Japan. Reading, audio and visual material, discussion, and development of culminating project. May be repeated for credit with topic change. Concurrently scheduled with course C159. S/U or letter grading.


Korean Lower-Division Courses

1. Elementary Modern Korean. (5) Lecture, two and one half hours; discussion, two hours. Open to students who have learned, from whatever source, enough Korean to qualify for more advanced courses. Designed for Korean-heritage learners who have very limited knowledge in Korean language or have had no formal in-school instruction in and to students with no Korean-heritage background who want more Korean speaking/listening exposure than available in course 1. Emphasis on spelling, basic grammar, reading, writing, and daily conversation. P/NP or letter grading.

2. Elementary Modern Korean. (5) Lecture, two hours; discussion, three hours. Enforced requisite: course 1 with grade of C or better or Korean placement test. Not open to students who have learned, from whatever source, enough Korean to qualify for more advanced courses. Designed for Korean-heritage learners who have very limited knowledge in Korean language or have had no formal in-school instruction in and to students with no Korean-heritage background who want more Korean speaking/listening exposure than available in course 1. Emphasis on spelling, basic grammar, reading, writing, and daily conversation. P/NP or letter grading.
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100A-100B-100C. Advanced Modern Korean. (4–4–4) Lecture, three hours; discussion, two hours. Requisite: course 6, 6A, or 10 with grade of C or better or Korean placement test. Not open to students who have learned, from whatever source, enough Korean to qualify for more advanced courses. Designed for students with no Korean heritage background who want more Korean-speaking/listening exposure than available in course 3. Continuation of course 2. P/NP or letter grading.

101A-101B-101C. Advanced Readings in Modern Korean. (4–4–4) Lecture. Three hours. Enforced requisite: course 101A or Korean placement test. Designed for students wishing to improve reading skills for students who have learned, from whatever source, enough Korean to qualify for more advanced courses. P/NP or letter grading.


103A-103B-103C. Readings in Sino-Korean Characters. (4–4–4) Lecture, three hours. Enforced requisite: course 6 or 6A or 10 or Korean placement test. Not open to students who attended elementary school in Korea for more than two years or who have learned, from whatever source, enough Korean to qualify for more advanced courses. Courses are taken independently for credit. P/NP or letter grading.

104A-104B-104C. Korean Writing for Advanced Learners. (4–4–4) Lecture. Three hours; discussion, one hour. Enforced requisite: course 101C or Korean placement test. Emphasis on academic writing in Korean, including rhetorical conventions, argument construction and coherence, and development of prose style. Readings include representative examples of diverse genres selected from magazines, journals, and books related to humanities and social sciences. P/NP (undergraduates), S/U (graduates), or letter grading.

C205A-C205B-C205C. Reading Korean Academic Texts. (4–4–4) Lecture, three hours. Enforced requisite: course 101C or Korean placement test. Intended to improve reading skills for students who have studied Korean to advanced level, with coverage in Korean of materials on Korean history, culture, and social sciences. Each course may be taken independently for credit. Concurrently scheduled with courses C205A-C205B-C205C. P/NP or letter grading.
106A-106B-106C. Superior Korean. (4-4-4) Lecture, three hours. Recommended preparation: course 101C. May not be taken concurrently with course 102A, 102B, or 102C. Use of speaking, listening, reading, and writing skills to participate effectively, or understand without difficulty any practical, social, and professional topics, whether those topics are familiar or not. Each course may be taken independently for credit. P/NP or letter grading.

106SL. Superior Korean with Service Learning. (4) Lecture, three hours; fieldwork, two hours. Required preparation: course 101C or Korean placement test. Concurrently scheduled with course 104A or Korean placement test. May not be taken concurrently with course 102A, 102B, or 102C. Development of professional and academic proficiency in oral and written Korean to understand many sociolinguistic and cultural references as well as variety of styles and forms pertinent to professional needs, many professional interpersonal interactions, and carry out professional-level tasks in student special area. Special attention to vocabulary development on professional level. Development of both interactive and noninteractive listening. Research projects to be assigned according to student interests. P/NP or letter grading.

107A-107B-107C. Professional/Academic Korean. (4-4-4) Lecture, three hours. Required course 101C or Korean placement test. Concurrently scheduled with course 104A or Korean placement test. May not be taken concurrently with course 102A, 102B, 102C, 106A, or 106SL, or 107A. Development of professional and academic proficiency in oral and written Korean to understand many sociolinguistic and cultural references as well as variety of styles and forms pertinent to professional needs, meet demands of professional interactions, and carry out professional-level tasks in student special areas. Special attention to vocabulary development on professional level. Research projects to be assigned according to student interests. Opportunity for students to communicate in Korean in authentic contexts while providing useful service to community. P/NP or letter grading.

107SL. Professional/Academic Korean and Community-Based Learning. (4) Lecture, three hours; fieldwork, two hours. Required course 101C or Korean placement test. Concurrently scheduled with course 104A or Korean placement test. Students must be concurrently enrolled in Korean and a community-based learning course. P/NP or letter grading.

108FL. Special Studies: Readings in Korean. (2) Seminar. Three hours: discussion, one hour. Recommended course 101C or Korean placement test. Must be concurrently enrolled in affiliated main course. Additional work in Korean to augment work assigned in main course, including reading, writing, and other exercises. May be repeated for credit. P/NP or letter grading.

109. Advanced Tutorial Instruction in Korean. (2) Tutorial, two hours. Required: course 100C or Korean placement test. Tutorial and guided independent study to help students develop advanced academic proficiency in oral and written Korean. May be repeated for credit. P/NP or letter grading.

CM120. Structure of Korean. (4) Same as Linguistics M177.) Lecture, three hours; discussion, one hour. Recommended preparation: two years of Korean, or one year of Korean and some knowledge of linguistics. Discussion of major syntactic, semantic, and pragmatic characteristics of Korean in light of linguistic universals and recent research in typological features, and phonological structure of Korean. Concurrently scheduled with course CM220. Letter grading.

124A. Topics in Korean Language and Culture. (4) Lecture, three hours; discussion, one hour. Recommended preparation: one to two years of college-level Korean. Introduction of basic concepts in sociocultural linguistics, and indigenous sources to analyze Korean language and culture. Study to increase understanding of variety of sociocultural variables of Korean language. Exploration of interrelationship among language, culture, and society, by examining Korean popular media (e.g., film/television drama, talk shows, music videos, digital discourse, advertisement, etc.). P/NP or letter grading.


130A-130B. Readings in Modern Korean Literature. (4-4) Lecture, three hours. Enforced requisites: course 100C or Korean placement test. English Composition 3 or 3H or one course from Comparative Literature 1A, 1B, 1C, 1D. Readings and discussion of major modern Korean literary texts. Each course may be taken independently for credit. Letter grading.

149A. Reading Modern Korean Academic Texts. (4) Seminar, three hours. Required: Course 101C or Korean placement test. Designed to improve reading skills for students who have studied Korean to advanced level, and need reading knowledge of Korean culture and society. Covers Korean academic texts (book chapters, journal articles, reviews, and primary sources) on various issues of modern Korean literature, history, politics, and society. P/NP or letter grading.


C151. Korean Literature in Translation: Modern. (4) Lecture, three hours; discussion, one hour. Required: English Composition 3 or 3H, one course from Comparative Literature 1A, 1B, 1C, 1D. Knowledge of Korean not required. Survey of modern and contemporary Korean literature. Concurrently scheduled with course C251P. P/NP or letter grading.

153. Korea West Encounters. (4) Lecture, three hours; discussion, one hour. Knowledge of Korean not required. Exploration of major cross-cultural encounters between Korea and West from late 16th to early 20th century and writings of leading historical figures. Letter grading.

154. Contemporary Korean Culture through Literature and Film. (4) Lecture, three hours; discussion, one hour. Required: English Composition 3 or one course from Comparative Literature 1A, 1B, 1C, 1D. Knowledge of Korean not required. Use of fiction and film to explore contemporary Korean culture in cross-cultural context. P/NP or letter grading.

155. Topics in Korean Cinema. (4) Lecture, one hour; discussion, one hour; film viewing. Three hours. Knowledge of Korean not required. Historical and critical survey of Korean cinema, examining intersection between 20th-century history, politics, and filmmaking. P/NP or letter grading.

159. Variable Topics in Culture and Society in Korea. (4) Lecture, three hours; discussion, one hour. Knowledge of Korean not required. Examination of relationships between film, literature, and society in Korea. Reading, audio and visual material, discussion, and development of culminating projects and/or writing assignments. May be repeated for credit with topic change. Letter grading.


165. Introduction to Korean Buddhist Texts. (4) Lecture, three hours; discussion, one hour. Required: course 100A or Chinese 110C or Korean placement test. Introduction to reading pre-modern and modern Buddhist discursive works written in Korean, and taken from indigenous doxographic materials andphilosophical writings, Korean Buddhist apocryphal scripture, native commentaries, and Son (Zen) texts. Coverage varies. May be read in either Sino-Korean or literary Chinese. May be repeated with consent of instructor. Letter grading.

172. Topics in Korean Christianity. (4) Lecture, three hours; discussion, one hour. Knowledge of Korean not required. Historical development of Christianity in Korea, beliefs and practices, impact of Christianity on modern Korean culture and society. Coverage varies. May be repeated for credit with consent of instructor. Letter grading.

175. Intellectual History of Premodern Korea. (4) Lecture, three hours; discussion, one hour. Knowledge of Korean not required. General survey of Korean thought from earliest historical record, including shamanism, Taoism, Buddhism, Christianity, and neo-Confucianism. Korean traditions and those found in India, China, Japan, and West. P/NP or letter grading.

176. Introduction to Korean Confucian Texts. (4) Lecture, three hours. Enforced requisites: course 100C or Chinese 110C or Korean placement test. Reading in premodern Korean and Chinese texts on politics, society, culture. Coverage varies. Texts may be read in either Sino-Korean or literary Chinese. May be repeated with consent of instructor. P/NP or letter grading.

177. Intellectual History of Modern Korea. (4) Lecture, three hours; discussion, one hour. Required: course 50. Knowledge of Korean not required. Survey of Korean thought in late 19th and 20th centuries, including religious thought, political thought, feminism, nationalism, and economic thinking and practice. P/NP or letter grading.


180A-180B-180C. History of Korea. (4-4-4) Lecture, three hours; discussion, one hour. Knowledge of Korean not required. Examination of evolution of Korean culture and society within context of political and institutional industry. Consideration of both higher and popular culture. P/NP or letter grading. 180A, Through 1829; 180B, 1626 through 1876; 180C. Since 1876.

181. Reading Korean Cultural Landscape. (4) Lecture, three hours; discussion, one hour. Knowledge of Korean not required. Introduction to Korean culture from historical/ geographical perspective. Examination of human cultural imprint on land in religious, linguistic, rural, and urban landscapes. Letter grading.

182. 1894 Kabo Reforms: History at Crossroads of Confucian Order. (4) Lecture, three hours; discussion, one hour. Knowledge of Korean not required. Examination of modernizing reforms adopted in Korea in 1894. Consideration of conflict between traditional and Western thinking, and taken from indigenous doxographic materials and philosophical writings, Korean Buddhist apocryphal scripture, native commentaries, and Son (Zen) texts. Coverage varies. May be read in either Sino-Korean or literary Chinese. May be repeated with consent of instructor. Letter grading.

185. Korean Political Culture and Society. (4) Lecture, three hours; discussion, one hour. Knowledge of Korean not required. Study of Korean political culture and society within context of political and institutional industry. Consideration of both higher and popular culture. P/NP or letter grading.
191A. Variable Topics Research Seminars: Premodern or Early Modern Korea. (4) Seminar, three hours. Research seminar on selected topics in premodern or early modern Korea. Reading, discussion, and development of culminating project. May be repeated for credit. Letter grading.

191B. Variable Topics Research Seminars: Contemporary Korean History. (4) Seminar, three hours. Research seminar on selected topics in modern Korean history. Reading, discussion, and development of culminating project. May be repeated for credit. Letter grading.

197. Individual Studies in Korean. (4) Tutorial, to be arranged. Limited to juniors/seniors and graduate students who desire more advanced independent instruction in Korean. Individual intensive study, with scheduled meetings to be arranged between faculty member and student. Assigned reading and tangible evidence of mastery of subject matter required. May be repeated for credit. Individual contract required; see undergraduate adviser. P/NP or letter grading.

Graduate Courses

200. Bibliography and Methods of Research in Korean. (4) Lecture, three hours. Requisites: course 101C, Chinese or Japanese, and modern or early modern Korean reference books, with concentration on Korean literature and language, and survey of basic bibliographical material. In addition, introduction to most important secondary sources in student's field of specialization. Letter grading.

203. Variable Topics in Korean Culture. (4) Seminar, three hours. Advanced course that explores Korean culture through in-depth reading of Korean-language texts and/or visual documents. Topics include literature, religion, folklore, cultural history, language, and society. May be repeated for credit. S/U or letter grading.

205A-205B. Reading Korean Academic Texts. (4–4) Lecture, three hours. Requisite: course 101C or Korean placement test. Intended to improve reading skills for students who have studied Korean to advanced level, with coverage in Korean of materials on Korean history, culture, and society. Each course may be taken independently for credit. Concurrently scheduled with courses C105A–C105B. S/U or letter grading.

206C. Reading Korean Academic Texts. (4) Lecture, three hours. Intended to improve reading skills for students who have studied Korean to advanced level, with coverage in Korean of materials on Korean history, culture, and society. Each course may be taken independently for credit. Concurrently scheduled with course C106C. S/U or letter grading.


211. Thought and Society in Modern Korea. (4) Discussion, three hours. Preparation: reading knowledge of Korean. Designated for graduate students. Critical examination of theoretical and field approaches to modern Korean history, including such topics as Korean capitalisms and communism, intellectual history, social movements, and Korean War. Letter grading.

212. 19th-Century Korea. (4) Seminar, three hours: discussion, one hour. Requisite: course 180B or 180C. Proseminar covering crucial period from coronation of Sunjo in 1800 to annexation of Korea by Japan in 1910, including major historical scholarship on political, diplomatic, social, economic, intellectual, and cultural history. Letter grading.

215. Korean Literary History. (4) Lecture, three hours. Designed for graduate students. Critical history of development of traditional Korean literature, with emphasis on context of particular area of focus to be nationalist canon that governs literary studies in Korea and West. Letter grading.

220. Structure of Korean. (4) Lecture, three hours; discussion, two hours. Recommended preparation: two years of Korean, or one year of Korean and some knowledge of linguistics. Discussion of major syntactic, semantic, and pragmatic characteristics of Korean in light of linguistic universals, with brief introduction to formation, typological features, and phonological, morphological, and syntactic properties of Korean. In Progress (220A) and letter (220B) grading.

224A-224B. Seminars: Selected Topics in Korean Linguistics. (4–4) Seminar, three hours. Critical reading and discussion of selected current functional linguistics (grammaticalization, discourse, pragmatics, sociolinguistics, syntax, morphology) and pedagogy. In Progress (224A) and letter (224B) grading.


230A-230B. Seminars: Literary Translation from Korean. (4–4) Seminar, three hours. Preparation: reading knowledge of Korean. In consultation with instructor, students select works to be translated. Devoted to skill of producing accurate and readable translations, with emphasis on problems and techniques unique to poetry and prose. At end of term, students expected to produce publishable translations. May be repeated once with consent of instructor. In Progress (230A) and letter (230B) grading.

235A-235B. Seminars: Topics in Modern Korean Literature. (4–4) Seminar, three hours. Preparation: at least two years of Korean and one year of elementary and intermediate Japanese. DEvoted to skill of producing accurate and readable translations, with emphasis on problems and techniques unique to poetry and prose. At end of term, students expected to produce publishable translations. May be repeated once with consent of instructor. In Progress (235A) and letter (235B) grading.


248. Reading Korean Scholarly Journals: Social and Cultural Change as Reflected in Academic Discourse. (4) Seminar, three hours. Recommended preparation: basic reading knowledge of Korean. Reading of recently published academic journal arti-
C260. Buddhism in India. (4) (Same as Religion M161D.) Lecture, three hours; discussion, one hour. Knowledge of Indian languages not required. Overview of social and doctrinal history of Buddhism from its origin to its disappearance in India, based not only on texts but also on archaeological, art historical, and inscriptive sources. Examination of both formal doctrinal and actual practices and on what learned Buddhists wrote and ordinary Buddhists did, saw, and made. Concurrently scheduled with course CM160. Letter grading.

175. Introduction to Indo-Philosophy. (4) Lecture, three hours. Survey of main trends in Indian philosophy from ancient to modern times. P/NP or letter grading.

185. Women and Gender in Ancient India. (4) Lecture, three hours. Knowledge of Indian languages not required. Exploration of women’s role in ancient India, primarily through study of key religious and legal texts. Topics include women’s life cycle, relation to social institutions, and challenges to traditional ideas, especially in narrative literature. P/NP or letter grading.

189. Advanced Honors Seminars. (1) Seminar. Three hours. Limited to 20 students. Designed as adjunct to upper-division lecture courses. Critical thinking about topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

Upper-Division Courses

110A. Elementary Sanskrit. (4) Lecture, three hours. Introduction to script and grammar, with reading exercises and attention to significance of Sanskrit for understanding of other Indo-European languages. P/NP or letter grading.


110C. Advanced Sanskrit. (4) Lecture, three hours. Requisite: course 110B. Reading of entire Bhagavadgita or comparable amount of other Sanskrit literature. P/NP or letter grading.

115. Readings in Sanskrit. (4) Lecture, three hours. Knowledge of Hindi/Urdu not required. Critical analysis of language and culture in South Asian diaspora as represented in films and/or literature. May be repeated once for credit, P/NP or letter grading.

CM160. Buddhism in India. (4) (Same as Religion M161D.) Lecture, three hours; discussion, one hour. Knowledge of Indian languages not required. Overview of social and doctrinal history of Buddhism from its origin to its disappearance in India, based not only on texts but also on archaeological, art historical, and inscriptive sources. Examination of both formal doctrinal and actual practices and on what learned Buddhists wrote and ordinary Buddhists did, saw, and made. Concurrently scheduled with course C260. Letter grading.

170. Variable Topics in South Asian Linguistics, Languages, and Cultures. (4) Lecture, three hours. Knowledge of Hindi/Urdu may be required. Critical analysis of language and culture in South Asian linguistic area, exploring notions of India as linguistic area and as cultural area. May be repeated for credit. P/NP or letter grading.

Graduate Courses

M222A-M222B. Vedics. (4–4) (Same as Indo-European Studies M222A-M222B and Iranian M222A-M222B.) Lecture, three hours. Preparation: knowledge of Sanskrit equivalent to course 110C. Characteristics of Vedics, the oldest extant texts of India, and the Indo-European linguistic area, exploring notions of India as linguistic area and as cultural area. May be repeated for credit. S/U or letter grading.

C234B. Introduction to Panini’s Grammar. (4–4) Lecture, three hours. Requisite: course 110C. Reading of selected passages of text, with introduction to Panini’s technical vocabulary. Class meetings in this seminar are those of Near East dating to end of 4th millennium.

C260. Buddhism in India. (4) Lecture, three hours; discussion, one hour. Knowledge of Indian languages not required. Overview of social and doctrinal history of Buddhism from its origin to its disappearance in India, based not only on texts but also on archaeological, art historical, and inscriptive sources. Examination of both formal doctrinal and actual practices and on what learned Buddhists wrote and ordinary Buddhists did, saw, and made. Concurrently scheduled with course CM160. Letter grading.

Southeast Asian

Lower-Division Courses

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

M60. Religion in Classical India: Introduction. (5) (Same as Religion M60D.) Lecture, three hours; discussion, one hour. Introduction to religious of classical India—Vedic, Brahmanical, Hindu, Jain, and Bud-
BC. While literate civilizations of Egypt, Indus Valley, China, and Mesoamerica left little evidence of correspon-
ding earliest developments, their antiquity and, in case of China and Mesoamerica, their evident isola-
tion mark these centers as loci of independent devel-
lopment. Comprehension of early modern writing sys-
tems, and presentation of conceptual basis of semi-
oc-otic language representation. Origins and develop-
ment of early modern systems. How Greco-Roman alphabet arose in 1st millennium BC and how it compares to other modern writing sys-
tems. P/NP or letter grading.

50. Southeast Asian Literatures and Cultures. (5) Lecture, three hours; discussion, one hour. General in-
trroduction to varied and diverse region of Southeast Asia. Designed to acquaint students with broad themes that characterize societies, cultures, and civiliza-
tions of this vitally important part of globe. Study of historical trajectories that have led eleven countries of region to present situations. Emphasis on examina-
tions of these societies and important contemporary issues relating to geography, topography, politics, cul-
ture, literature, gender issues, religion, human rights, and environment. P/NP or letter grading.

89HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. De-
signed as adjunct to lower-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental read-
ings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract re-
quired. Honors content noted on transcript. P/NP or letter grading.

99. Student Research Program. (1 to 2) Tutorial (su-
ervised research or other scholarly work), three hours per week. Credit by permission of department. En-
couragement students under guidance of faculty mentor. Stu-
dents must be in good academic standing and en-
rolled in minimum of 12 units (excluding this course). Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP or letter grading.

Upper-Division Courses

130. Topics in Southeast Asian Literature. (4) Lecture, three hours. Requisite: one course from Compar-
ative Literature 1A, 1B, 1C, 1D, 2AW, 2BW, 2CW, or English Composition 3 or 3H. Knowledge of Southeast Asian languages not required. Advanced exploration of Southeast Asia through in-depth reading of texts from region. Topics include censorship, politics, lan-
guage, and literature. P/NP or letter grading.

135. Religion and Society in Southeast Asia. (4) Lecture, three hours; discussion, one hour. Critical is-
sues related to major religious traditions in Southeast Asia, with emphasis on reading and reflecting on re-
cent scholarship regarding complex interactions be-
tween religion, state, and identity in contemporary Southeast Asia. P/NP or letter grading.

C140. Zomia: Peoples, Societies, and Cultures of Upland Southeast Asia. (4) (Formerly numbered 140.) Lecture, three hours; discussion, one hour. Rec-
ommended requisite: prior course in Asian cultures or history. Multidisciplinary survey of peoples of upland Southeast Asia and critical issues affecting them. Topics include history, culture, human rights, ethnicity, religion, politics. Concurrently scheduled with course C240. P/NP or letter grading.

157. Gender Issues in Southeast Asia. (4) Seminar, three hours. Critical examination of gender issues in one or more Southeast Asian countries as they con-
nect to social historical contexts nationally, regionally, or globally. May be repeated for credit. P/NP or letter grading.

170A-170B-170C. Topics in Southeast Asian Stud-
ies. (4-4-4) Lecture, three hours. Exploration of Southeast Asian culture through in-depth reading of texts and/or visual documents. Topics include litera-
ture, religion, folklore, cultural history, and society. P/ NP or letter grading.

189. Advanced Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to undergraduate lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible stu-
dents. Honors content noted on transcript. P/NP or letter grading.

189HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. De-
signed as adjunct to lower-division lecture course. In-
dividual study with lecture course instructor to explore topics in greater depth through supplemental read-
ings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract re-
quired. Honors content noted on transcript. Letter grading.

197. Individual Studies in Southeast Asian. (4) Tuto-
rial, to be arranged. Limited to juniors/seniors and graduate students who desire more advanced or spe-
cialized treatment of one language offered in program beyond introductory level. Intermediate level courses con-
tensively offered. Individual intensive study, with sched-
uled meetings to be arranged between faculty member and student. Assigned reading and tangible evidence of mastery of subject matter required. May be repeated for credit. Individual contract required; see academic coordinator. P/NP or letter grading.

Graduate Courses

205. Southeast Asian Culture and History. (4) Sem-
inar, three hours. Designed to expose graduate stu-
dents to study of Southeast Asia as region across mul-
tiple disciplines. Discussions led by instructor and guest faculty members about core elements of their
discipline’s engagement with Southeast Asia, as well as is last semester of research in that area. Reading of classic texts, as well as research articles representing current state of field. S/U or letter grading.

C240. Zomia: Peoples, Societies, and Cultures of Upland Southeast Asia. (4) Lecture, three hours; dis-
cussion, one hour. Recommended requisite: prior course in Asian cultures or history. Multidisciplinary survey of peoples of upland Southeast Asia and crit-
ical issues affecting them. Topics include history, cul-
ture, human rights, ethnicity, religion, politics. Concur-
rently scheduled with course C140. S/U or letter grading.

Thai Lower-Division Courses

1. Introductory Thai. (5) Lecture, three hours; discus-
sion, two hours. Coverage of basic Thai grammar, with equal emphasis on reading, writing, conversation, and comprehension. P/NP or letter grading.

2. Introductory Thai. (5) Lecture, three hours; discus-
sion, two hours. Coverage of basic Thai grammar, with equal emphasis on reading, writing, conversation, and com-
prehension. P/NP or letter grading.

3. Introductory Thai. (5) Lecture, three hours; discus-
sion, two hours. Requirement of basic Thai grammar, with equal emphasis on reading, writing, conversation, and com-
prehension. P/NP or letter grading.

3R. Thai Scripts. (5) Lecture, five hours. Recommended preparation: speaking and listening skills in Thai and Thai placement test. Training in reading and writing at introductory level. Completion of course 3R is equivalent to completion of one year of college-level Thai. P/NP or letter grading.

4. Intermediate Thai. (5) Lecture, five hours. Rein-
forcement of basic Thai grammar and coverage of more advanced topics. Broadening of skills in conver-
sation and composition; reading of selected texts. P/ NP or letter grading.

5. Intermediate Thai. (5) Lecture, five hours. En-
rforced requisite: course 4 with grade of C or better. Reinforcement of basic Thai grammar and coverage of more advanced topics. Broadening of skills in conver-
sation and composition; reading of selected texts. P/ NP or letter grading.

6. Intermediate Thai. (5) Lecture, five hours. Rein-
rforced requisite: course 5 with grade of C or better. Reinforcement of basic Thai grammar and coverage of more advanced topics. Broadening of skills in conver-
sation and composition; reading of selected texts. P/ NP or letter grading.

18. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

99HC. Honors Contracts. (1) Tutorial, three hours. Limited to seniors and graduate students who desire more advanced or spe-
cialized treatment of one language offered in program beyond introductory level. Intermediate level courses con-
tensively offered. Individual intensive study, with sched-
uled meetings to be arranged between faculty member and student. Assigned reading and tangible evidence of mastery of subject matter required. May be repeated for credit. Individual contract required; see academic coordinator. P/NP or letter grading.

199. Student Research Program. (1 to 2) Tutorial (su-
ervised research or other scholarly work), three hours per week. Credit by permission of department. En-
couragement students under guidance of faculty mentor. Stu-
dents must be in good academic standing and en-
rolled in minimum of 12 units (excluding this course). Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP or letter grading.

Upper-Division Courses

100A-100B-100C. Advanced Thai. (4-4-4) Lecture, three hours. Course 100A with grade of C or better is requisite to 100B; course 100B with grade of C or better is requisite to 100C. Reinforcement of basic Thai grammar and vocabulary acquired at beginning and intermediate levels. Coverage of more advanced topics on various aspects of Thai society. Broadening
of skills in conversation and composition. Reading of selected texts and authentic materials. P/NP or letter grading.

109. Advanced Tutorial Instruction in Thai. (2) Tutorial, two hours. Requisite: course 6 or Thai placement test. Tutorial and guided independent study to help students develop advanced proficiency in oral and written Thai. May be repeated for credit. P/NP or letter grading.

189. Advanced Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to lower-division undergraduate lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be repeated for credit. Honors content noted on transcript. P/NP or letter grading.

189HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to upper-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. P/NP or letter grading.

155FL. Readings in Vietnamese. (2) Seminar, two hours. Requisite: course 3 or 3A. Enforced corequisite: course 155. Additional work in Vietnamese to augment work completed in course 155, including reading, tutoring, and other exercises in Vietnamese. P/NP or letter grading.

170. Variable Topics in Vietnamese Linguistics, Languages, and Cultures. (4) Lecture, three hours. Knowledge of Vietnamese may be required. Critical analysis of linguistic structures, exploring notion of Vietnam as culture area, surveying literary landscape through poetry and short stories. May be repeated for credit. P/NP or letter grading.

180A. Vietnam: History and Civilization to 1858. (4) Lecture, three hours; discussion, one hour. Recommended preparation: at least one Asian history course. Exploration of Vietnamese society and culture from origins to early 19th century, with emphasis on examination of ways in which interactions between indigenes and Chinese/Southeast Asian political and cultural forces helped shape religious, literary, and social traditions. P/NP or letter grading.

180B. Vietnam: History and Civilization, 1858 to Present. (4) Lecture, three hours; discussion, one hour. Recommended preparation: at least one Asian history or civilization course. Exploration of Vietnam history and civilization during colonial and postcolonial eras, with emphasis on profound changes that swept through Vietnamese society during period of extended political and military conflict. P/NP or letter grading.

M186. Korea and Vietnam: Comparative Modern Histories. (4) (Same as Korean M186.) Seminar, three hours. Comparative survey of intertwinded and parallel histories of Korea and Vietnam, organized chronologically, but structured around five case studies for basis of comparison. Modern experiences of colonized Korea and Vietnam have many significant parallels, including imposition of colonial control, transition to modernized societies within context of colonialism, and shared experiences of World War II. Both were also divided after war between communist regimes in north and strongly anticomunist regimes in south. Each also experienced warfare after division and direct involvement of U.S. during height of cold war between 1950s and 1970s. P/NP or letter grading.

189. Advanced Honors Seminars. (1) Seminar, three hours. Limited to students in College Honors Program. Designed as adjunct to upper-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. P/NP or letter grading.

189HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to upper-division lecture course, individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

Việt Nam

Lower-Division Courses

1. Introductory Vietnamese. (5) Lecture, two hours; discussion, three hours. Coverage of basic Vietnamese grammar, with equal emphasis on reading, writing, conversation, and comprehension. P/NP or letter grading.

2. Introductory Vietnamese for Heritage Learners. (5) Lecture, two hours; discussion, three hours. Enforced requisite: course 1 with grade of C or better. Coverage of basic Vietnamese grammar, with equal emphasis on reading, writing, conversation, and comprehension. P/NP or letter grading.

3. Intermediate Vietnamese. (5) Lecture, two hours; discussion, three hours. Enforced requisite: course 2 with grade of C or better. Coverage of basic Vietnamese grammar, with equal emphasis on reading, writing, conversation, and comprehension. P/NP or letter grading.

3A. Introductory Vietnamese for Heritage Learners. (4) Lecture, two hours; discussion, three hours. Enforced requisite: course 2A with grade of C or better or Vietnamese placement test. Not open to students who have learned, from whatever source, enough Vietnamese to qualify for more advanced courses. Designed for Vietnamese-heritage learners who have some limited knowledge of Vietnamese or have had no formal instruction in Vietnamese. Emphasis on spelling, basic grammar, reading, writing, daily conversation, and polite forms. P/NP or letter grading.

3B. Introductory Vietnamese Reading and Writing. (5) Lecture, five hours. Recommended preparation: speaking and listening skills in Vietnamese. Training in reading and writing skills at elementary level, equivalent to completion of one year of Vietnamese. P/NP or letter grading.

4. Intermediate Vietnamese. (5) Lecture, two hours; discussion, three hours. Enforced requisite: course 3 with grade of C or better. Reinforcement of basic Vietnamese grammar and coverage of more advanced topics. Broadening of skills in conversation and composition; reading of selected texts. P/NP or letter grading.

5. Intermediate Vietnamese. (5) Lecture, two hours; discussion, three hours. Enforced requisite: course 4 with grade of C or better. Reinforcement of basic Vietnamese grammar and coverage of more advanced topics. Broadening of skills in conversation and composition; reading of selected texts. P/NP or letter grading.

6. Intermediate Vietnamese. (5) Lecture, two hours; discussion, three hours. Enforced requisite: course 5 with grade of C or better. Reinforcement of basic Vietnamese grammar and coverage of more advanced topics. Broadening of skills in conversation and composition; reading of selected texts. P/NP or letter grading.

8. Elementary Vietnamese: Intensive. (15) Lecture, 10 hours; discussion, 10 hours. Intensive course equivalent to courses 1, 2, and 3. Coverage of basic Vietnamese grammar, with equal emphasis on reading, writing, conversation, and comprehension. Offered in summer only. P/NP or letter grading.

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

40. War in Vietnamese Popular Culture. (5) Lecture, three hours; discussion, one hour. Knowledge of Vietnamese not required. Focus on popular culture produced and consumed by, or about, people in Vietnam and diasporas. Materials include theoretical and other scholarly texts, as well as literature, music, visual art, films, and comics. Reading of scholarly writings for argument, date, and methods, and learning to apply theoretical frameworks in readings and lectures to analysis of popular cultural productions. P/NP or letter grading.

89. Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to lower-division lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be repeated for credit. Honors content noted on transcript. P/NP or letter grading.

89HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to lower-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

89HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to lower-division lecture course, individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

Upper-Division Courses

400A-400B-400C. Advanced Vietnamese. (4–4–4) Lecture, three hours. Enforced requisite: course 6 with grade of C or better or placement test. Designed to strengthen and build on language skills previously acquired at beginning and intermediate levels. Content-based readings and discussion, with various aspects of Vietnamese, particularly its culture, reading and writing, cultural studies, and Vietnamese history and literature. P/NP or letter grading.
ATMOSPHERIC AND OCEANIC SCIENCES

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Jeffrey K. Lew, PhD

Adjoint Professors
Yi Chao, PhD
Randall R. Friedli, PhD
Lawrence W. Harding, PhD
Hui Su, PhD
Duane E. Waliser, PhD

Adjoint Assistant Professors
Wolfgang Buermann, PhD
Annmarie Eldering, PhD

Scope and Objectives
The atmospheric and oceanic sciences present a wide variety of problems of compelling scientific interest and increasing social concern. This is exemplified by efforts to improve air quality, depredations caused by severe storms and floods, attempts to control or modify weather phenomena, problems of long-range weather forecasts, climate change, and predictions, and expanding scientific frontiers into our outer atmosphere and atmospheres of other planets.

The Department of Atmospheric and Oceanic Sciences offers a broad curriculum in dynamic and synoptic meteorology, atmospheric physics and chemistry, and upper atmosphere and space physics. The Bachelor of Science degree Qualifies students for entry-level technical positions or represents valuable background for training in other professions. Master of Science and Ph.D. degree holders work in universities, research centers, laboratories, and government services and, increasingly, in the rapidly burgeoning private sector.

Undergraduate Study
The Atmospheric and Oceanic Sciences/Mathematics major is a designated capstone major. Students acquire experience in conceiving and executing research projects designed to evaluate hypotheses and complete an individual project or thesis selected with the assistance of the program advisers and faculty mentor. The topic should reflect integrative application of mathematics to atmospheric and oceanic sciences. Students are expected to prepare a significant independent piece of work that applies knowledge gained in their coursework in a new and unique way.

Atmospheric and Oceanic Sciences BS

Learning Outcomes
The Atmospheric and Oceanic Sciences major has the following learning outcomes:

- Display mastery of basic principles and tools of science: calculus, physics, chemistry, computer programming, and writing
- Display fundamental understanding of atmospheric and oceanic sciences
- Demonstrated analytical and mathematical skills through application of learned concepts and tools to solve theoretical, computational, and empirical problems
- Ability to apply knowledge to independently identify, analyze, and understand real-world problems and issues
- Demonstrated effective oral and written communication of results and conclusions of investigative work

Preparation for the Major
Required: Atmospheric and Oceanic Sciences SI, M71 (prefered) or Program in Computing 10A, 90; Chemistry and Biochemistry 14A and 14B, or 20A and 20B; Mathematics 3A, 3B, and 3C, or 31A, 31B, 32A, 32B, 33A, and 33B; Physics 1A, 1B, and 1C, or 1AH, 1BH, and 1CH, or 5A, 5B, and 5C.

Students interested in pursuing graduate studies in atmospheric and oceanic sciences or obtaining employment with the National Weather Service or other government agencies are strongly urged to select the Mathematics 31A through 33B sequence and the Physics 1 sequence.

Transfer Students
Transfer applicants to the Atmospheric and Oceanic Sciences major with 90 or more units must complete as many of the following introductory courses as possible prior to admission: one year of calculus, one year of calculus-based physics with laboratory, one general chemistry course with laboratory for majors, and one MATLAB, Python, or C++ programming course.

Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

The Major
Required: Four courses from Atmospheric and Oceanic Sciences 101, 103, 104, M105, 107, 112, three additional upper-division atmospheric sciences courses selected in consultation with the undergraduate advisers, and two upper-division courses from a list of chemistry, mathematics, physics, and statistics courses selected in consultation with the undergraduate advisers.

Atmospheric and Oceanic Sciences 199 (independent research) taken for 4 units may be units to satisfy one upper-division elective. Thesis approval required from faculty adviser and submitted to department student affairs officer.

Atmospheric and Oceanic Sciences/Mathematics BS

Capstone Major

Learning Outcomes
The Atmospheric and Oceanic Sciences/Mathematics major has the following learning outcomes:

- Fundamental knowledge of the atmospheric and oceanic sciences, and the mathematical tools that enable research to be conducted
- Identification of potential research areas of interest
- Experience in conceiving and executing research projects designed to evaluate hypotheses through courses that stress oral and written presentation of research results
- Proposition, execution, and evaluation of a research project with the assistance and supervision of a faculty mentor
• Tangible capstone product, such as a written thesis, that will be archived and possibly disseminated within and beyond the department

Preparation for the Major
Required: Atmospheric and Oceanic Sciences M71 or Program in Computing 10A, 90, Mathematics 31A, 31B, 32A, 32B, 33A, 33B, Physics 1A, 1B, 1C, and one course selected from Atmospheric and Oceanic Sciences 1, 2, 3, 5, M7, M1. Chemistry and Biochemistry I4A and I4B (or 20A and 20B) may also be required, depending on atmospheric and oceanic sciences upper-division course selection. Each course must be taken for a letter grade and must be passed with a grade of C– or better, and students must have a minimum overall grade-point average of 2.0 for the courses.

Transfer Students
Transfer applicants to the Atmospheric and Oceanic Sciences/Mathematics major with 90 or more units must complete as many as the following introductory courses as possible prior to admission to UCLA: two years of calculus for majors, physics courses equivalent to Physics 1A, 1B, and 1C, and one MATLAB, Python, or C++ programming course.

Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

The Major
Required: Six mathematics courses, including Mathematics 115A, 131A, 134, and three elective courses selected from 115B, 131B, 135, 136, 142, 151A, 151B, 170A, 170B, one of which must be 115B, 131B, 151B, or 170B; six upper-division atmospheric and oceanic sciences courses, including two core courses selected from Atmospheric and Oceanic Sciences 101, 103, 112, and two elective courses selected from C110, C115, M120, C144, C170, and M160, 180, and any two additional upper-division Atmospheric and Oceanic Sciences courses.

One capstone senior projects/thesis course, Atmospheric and Oceanic Sciences 199, taken for 4 units, is also required. An individual project or thesis to be selected with the assistance of the program advisers and a faculty mentor must be completed. Thesis approval required from faculty adviser and submitted to department student affairs officer.

Climate Science BS
Learning Outcomes
The Climate Science major has the following learning outcomes:
• Demonstrated mastery of the basic principles and tools of science
• Demonstrated fundamental understanding of the atmospheric and oceanic sciences
• Demonstrated analytical and mathematical skills through the application of learned concepts and tools in solving relevant theoretical, computational, and empirical problems

• Ability to apply knowledge gained to independently identify, analyze, and understand real-world problems and issues
• Demonstrated effective oral and written communication of results and conclusions
• Understanding of the societal and policy context of climate science

Preparation for the Major
Required: Atmospheric and Oceanic Sciences S1, M71 or Program in Computing 10A; Chemistry and Biochemistry I4A and I4B, or 20A and 20B; Mathematics 3A, 3B, and 3C, or 31A, 31B, 32A, and 33B; Physics 1A, 1B, and 1C, 1AH, 1BH, and 1CH, or 5A, 5B, and 5C; Statistics 10, 12, or 13.

Students interested in pursuing graduate studies in climate sciences or other branches of science are encouraged to select the Mathematics 31A through 33B sequence and the Physics 1 sequence.

Transfer Students
Transfer applicants to the Climate Science major with 90 or more units must complete as many of the following introductory courses as possible prior to admission to UCLA: one year of calculus, one year of calculus-based physics with laboratory, one general chemistry course with laboratory for majors, one course in programming (MATLAB or Python), and one introductory statistics course.

Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

The Major
Required: Atmospheric and Oceanic Sciences 101, M105, C110, 112, 145, and two additional upper-division atmospheric and oceanic sciences courses selected from 103, 104, M106, 107, CM114, M120, 130, 131, 132, 135, 150, C160, C170, 180, 199, and two additional courses from the approved list of 220  /  Atmospheric and Oceanic Sciences

groups of courses relevant to specific subareas of atmospheric and oceanic sciences include (1) atmospheric chemistry: Atmospheric and Oceanic Sciences 104, Chemistry and Biochemistry 103, 110A, 110B, 113B, 114; (2) atmospheric chemistry and biology: Atmospheric and Oceanic Sciences 101, 104, Ecology and Evolutionary Biology 109, C119A, 122, 123A or 123B, 147, 148, Mathematics 115A, 115B, 132, 135, 136, 146, 170A, 170B, Physics 110A, 110B, 112, M122, 131, 132. Other relevant courses from related disciplines may be substituted with prior approval of the department. At least five courses approved for the minor must be upper division.

Graduate Study
Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Division website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Graduate Degrees
The Department of Atmospheric and Oceanic Sciences offers Master of Science (MS), Candidate in Philosophy (CPhil), and Doctor of Philosophy (PhD) degrees in Atmospheric and Oceanic Sciences.
Atmospheric and Oceanic Sciences

Lower-Division Courses

1. Climate Change: From Puzzles to Policy. (4) Lecture, three hours; discussion, one hour. Overview of fundamentals of Earth’s climate, including greenhouse effect, water and chemical cycles, outstanding features of atmospheric and ocean circulation, and feedback between different system components. Exciting and contentious scientific puzzles of climate system, including causes of ice ages, greenhouse warming, and ice sheets. The role of climate science in predicting to society, with emphasis on science’s role in identifying, qualifying, and solving environmental problems such as ozone hole and greenhouse warming. P/NP or letter grading.

1L. Climate Change: From Puzzles to Policy—Laboratory. (1) Laboratory, one hour. Enforced corequisite: course 1. Investigations and demonstrations supporting material in course 1, including greenhouse effect, atmosphere and ocean circulation, past, present, and future climates, and role of science in climate change politics. P/NP or letter grading.


2L. Air Pollution Laboratory. (1) Laboratory, one hour. Enforced corequisite: course 2. Investigations and demonstrations supporting material in course 2, including box model simulation, dose responses, air parcel motion and pollution dispersion, daily and seasonal variation of smog pollutants, and smog transport. P/NP or letter grading.


3L. Introduction to Atmospheric Environment Laboratory. (1) Laboratory, one hour. Enforced corequisite: course 3. Investigations and demonstrations supporting material in course 3, including causes and effects of air pollution and smog, air/water interactions, atmospheric stability, and weather systems (fronts and cyclones). P/NP or letter grading.

5. Climates of Other Worlds. (4) Lecture, three hours; discussion, one hour. Introduction to atmospheres of planets and their satellites in solar system using information obtained during recent planetary exploration program. Elementary description of origin and evolution of atmospheres on planets. Climates on planets, conditions necessary for evolution of life, and its resulting effect on planetary environment. P/NP or letter grading.


19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current interest and importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

51. Fundamentals of Climate Science. (4) Lecture, three hours; discussion, one hour. Requisites: Mathematics 3B or 32A, Physics 1B or 5C or 6B, with grades of C or better. Development of fundamental understanding of climate science. Topics include global energy balance, atmospheric radiation and greenhouse effect, surface and boundary layer dynamics, atmospheric and oceanic circulation, global hydrologic cycle, modes of climate sensitivity, climate modeling, and feedback. P/NP or letter grading.

M71. Introduction to Computing for Geoscientists. (4) (Same as Earth, Planetary, and Space Sciences M71,) Lecture, three hours; laboratory, 90 minutes; outside computing study, six to 10 hours. Introduction to programming, visualization of geoscientific data, and comparison with models. P/NP or letter grading.

Lower-Division Seminar. (4) Seminar, three hours. Topics. Public and personal variation of smog pollutants, and smog transport, dispersion, modification, and removal, with emphasis on students’ understanding of the processes on scales ranging from individual sources to global effects; interaction with biosphere and oceans; stratospheric pollution. P/NP or letter grading.

88. Higher-Division Seminar. (4) Seminar, three hours. Introduction to topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

99HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to lower-division lecture course. Individual study with lecture course instructor to explore topics in greater depth. P/NP or letter grading.

99. Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to lower-division lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. Letter grading.

10. Introduction to Undergraduate Research in Atmospheric and Oceanic Sciences. (4) Lecture, two hours; laboratory, two hours. Requisites: Earth, Planetary, and Space Sciences 71 or Civil Engineering M202 or Program in Computing 10A; Mathematics 3A, 3B, or 31A, 31B; Physics 1A or 5A or 6A. Students gain basic ability to understand, conduct, and communicate scientific research in atmospheric and oceanic sciences. Univariate and bivariate statistical data analysis, scientific computer programming, basics of scientific process, finding and reading scientific literature, basic experimental techniques, Earth system data analysis and visualization, and communication of scientific findings in oral and written form. Skills taught in context of projects from atmospheric and oceanic sciences. P/NP or letter grading.

99. Student Research Program. (1 to 2) Tutorial (supervised research or other scholarly work), three hours per week per unit. Entry-level research for lower-division students under guidance of faculty mentor. Students must be in standing and enrolled in minimum of 12 units (excluding this course). Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP grading.

Upper-Division Courses

M100. Earth and its Environment. (4) (Same as Environmental M111.) Lecture, three hours. Overview of Earth as system of distinct, yet intimately related, physical and biological elements. Origins and characteristics of atmosphere, oceans, and land masses. Survey of historical development of the geologic dynamic-oceanic system. El Niño. Biological oceanography. Lecture, three hours; laboratory, two hours. Requisites: Earth, Planetary, and Space Sciences 71 or Civil Engineering M202 or Program in Computing 10A; Mathematics 3A, 3B, or 31A, 31B; Physics 1A or 5A or 6A. Students gain basic ability to understand, conduct, and communicate scientific research in atmospheric and oceanic sciences. Univariate and bivariate statistical data analysis, scientific computer programming, basics of scientific process, finding and reading scientific literature, basic experimental techniques, Earth system data analysis and visualization, and communication of scientific findings in oral and written form. Skills taught in context of projects from atmospheric and oceanic sciences. P/NP or letter grading.

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107. Biological Oceanography. (4) Lecture, three hours; discussion, one hour. Introductory course for physical sciences, life sciences, and engineering majors interested in aquatic environment. Chemical composition of oceans and nature of physical, chemical, and biological processes governing this composition in past and present. Cycles of major and minor oceanic constituents, and those that are most important for life (i.e., carbon, nitrogen, phosphorus, silicon, and oxygen). Investigation of primary production, export production, remineralization, dia-genesis, air-sea gas exchange processes. Letter grading.

M106. Applied Clamatology: Principles of Climate Impact on Natural Environment. (4) (Same as Geography M118.) Lecture, three hours; discussion, one hour. Designed for juniors/seniors. Exploration of knowledge and tools to solve complex problems in contemporary applied climatology, including current policies, influence of climate on environment, and human influence on changing climates. P/NP or letter grading.


C110L. Advanced Dynamic and Synoptic Meteorology Laboratory. (2) Laboratory, two hours. Comprehensive weather forecasting exercises and map discussions led by meteorologist. Concurrently scheduled with course C227. P/NP or letter grading.

C111. Introduction to Machine Learning for Physical Sciences. (4) Lecture, 90 minutes; laboratory, 90 minutes. Designed for physical sciences students. Python, hands-on introduction to seven of the most popular algorithms of machine learning (ML). Students gain most practical skills to start working in industry or research immediately, using popular Python programming language, together with ScikitLearn ML library, and covering essential theory to understand what al-
112. Climate Change Assessment. (4) Lecture, three hours; discussion, one hour. Requisite: one course from Life Sciences 26B, 40, Mathematics 3B, 31B, Statistics 12. Recommended prerequisite: course 1 from 51, 101, 102, 103, 104, 105, 106, 107, Environment 175, or equivalent background for reading scientific literature. Literature review; climate change. Projections of future anthropogenic climate change and understanding of natural climate variability depend on international climate model intercomparison projects, on large observational co-ordinating space and ground observations, and on multi-scientist climate assessments. Lectures, readings and projects with presentations address current issues in the scientific literature on assessment of climate change for students with prior background in the atmospheric, oceanic, and environmental sciences. P/NP or letter grading.

CM114. Aquatic Geomicrobiology. (4) Same as Earth, Planetary, and Space Sciences C114.) Lecture, three hours; discussion, one hour. Requisite: course M105 or Earth, Planetary, and Space Sciences C107. Fundamental geomicrobiological processes occurring in aquatic systems, how they impact their environment, and how they interact in complex ecosystems such as methane seeps, hydrothermal vents, coral reef ecosystems, and biogeochemistry of biomes. Metabolisms include different phototrophic, heterotrophic, and chemotrophic pathways. Interpretation of geochemical profiles and understanding of how microbial communities govern mineralization and element cycling in aquatic systems. Concurrently scheduled with course CM237. P/NP or letter grading.

C115. Mesometeorology. (4) Lecture, three hours. Requisite: course 101. Observations of phenomena with length scales ranging from 20 km to 2,000 km. Topics include polar lows, airmass thunderstorms, multicell storms, supercell tornadoes, gust fronts, downbursts, microbursts, and dry line. Discussions on design of field project. Concurrently scheduled with course C228. P/NP or letter grading.


130. California's Ocean. (4) Lecture, four hours. Requisite: course 103 or M105. Circulation, biogeography, biota, water quality, measurement techniques, computational modeling, conservation, and management for California's coastal ocean, including coastal measurement cruise and term project (paper and presentation). Letter grading.

135. Ocean Change in the Anthropocene. (4) Lecture, 90 minutes; laboratory, 90 minutes. Requisites: courses 103 and 105. Review of main impacts of human activities on ocean, from warming and acidification to overfishing, pollution, and exploitation of marine resources. Discussion of concepts of governance and sustainability. Introduction to global ocean databases and IPCC-class model output. Student-led presentation to review significant papers from scientific literature. Letter grading.


C144. Atmospheric Boundary Layer. (4) Lecture, three hours. Enforced requisite: course 101 with grade of B+ or better. Atmospheric boundary layer is lowest portion of atmosphere, representing interface between Earth’s surface and atmosphere, is strongly affected by turbulence, and plays important role in exchange of heat, momentum, trace gases, and aerosols between Earth’s surface and free troposphere. Investigation of properties of atmospheric boundary layer and processes that determine it. Concurrently scheduled with course C222. P/NP or letter grading.

145. Atmospheric Physics: Radiation, Clouds, and Aerosols. (4) Lecture, three hours; discussion, one hour. Requisites: Physics 11A, 1C, or 6A, 6B, and 6C. Theory and application of atmospheric radiation, aerosol, and cloud processes. Topics include radiative transport, cloud and rain formation, aerosol properties, impact of aerosol and clouds on climate. Letter grading.

150. Atmospheric and Ocean Sciences Laboratory. (5) Lecture, one hour; laboratory, six hours. Requisites: Mathematics 3B or 31B, Physics 1B and 1C or 6B and 6D. Many of today’s environmental problems, such as stratospheric ozone hole, current rise of greenhouse gas concentrations, and various severe weather phenomena, were first discovered and investigated using observing techniques. Direct experimental observations remain crucial component in today’s efforts to better understand weather, climate, and pollution of atmosphere and ocean. Introduction to modern research approach in atmospheric and oceanic sciences. Students work in small groups to gain hands-on experience in setup, performance, analysis, and reporting of different experiments. Independent projects using principles of these experimental methods and basic data analysis tools. P/NP or letter grading.

155. Introduction to Ecosystem-Atmosphere Interactions. (4) Lecture, three hours; discussion, one hour. Requisites: Physics 1C or 6B. Theory and techniques of remote sensing; atmospheric spectroscopy, scattering, and polarimetry; retrieval of relevant satellite and lidar systems; inversion methods; remote sensing of clouds, aerosols, temperature, precipitation, and trace constituents; remote sensing of oceans and biosphere. Concurrently scheduled with course C240B. P/NP or letter grading.

C170. Introduction to Solar System Plasmas. (4) Lecture, three hours; discussion, one hour. Requisites: Mathematics 33A, Physics 1C. Introduction to basic plasma physical processes occurring in sun, solar wind, magnetospheres, and ionospheres of planets, using simple fluid (magnetohydrodynamic) models as well as individual particle (radiation belt dynamics) approach. Solar-planetary plasmas, geophysical and magnetic phenomena, aura. Concurrently scheduled with course C205A. Letter grading.


C182. Data Analysis in Atmospheric and Oceanic Sciences. (4) Lecture, three hours; laboratory, one hour. Enforced requisite: one course from 101 through M105. Recommended: one probability course. Overview of data analytic methods in common use in atmospheric and oceanic research. Linear models, principal component analysis (empirical orthogonal function), time-series analysis, and clustering methods. Model validation and evaluation, significance tests, error analysis, bias detection. Emphasis on practical applications, with specific examples from atmospheric and oceanic sciences. Concurrently scheduled with course C260. P/NP or letter grading.

186. Operational Meteorology. (2) Laboratory, six hours. Requisite: course C110. Limited to junior/senior Atmospheric, Oceanic, and Environmental Sciences majors. Daily contact with weather data and forecasting, satellite and radar data. Introduction to weather forecasting for aviation, air pollution, marine 12-, fire weather, and public use. Includes daily weather map discussions and visits to observing, radiosonde, and radar installations. Letter grading.

188. Special Topics in Atmospheric and Oceanic Sciences. (4) Lecture, three hours; discussion, one hour. Departmentally-sponsored experimental or terminal courses, such as those taught by visiting faculty members. May be repeated for credit with topic change. P/NP or letter grading.

189. Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to undergraduate lecture course. Exploration of topics in greater depth through supplemental readings, papers, or laboratory. May be repeated for credit with topic change. P/NP or letter grading.

189HC. Honors Contracts. (1) Seminar, three hours. Limited to students in College Honors Program. Designed as adjunct to upper-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

190. Research Colloquia in Atmospheric and Oceanic Sciences. (2 to 4) Seminar, two hours. Preparation: basic knowledge of meteorology (equivalent to course 3) and lower-division calculus, chemistry, and physics; course 101 strongly recommended. Concurrently scheduled with course C260. P/NP or letter grading.

197. Individual Studies in Atmospheric and Oceanic Sciences. (2 to 4) Tutorial, to be arranged. Limited to juniors/seniors. Individual intensive study, with scheduled meetings to be arranged between faculty and student. Applicable for eligibility of mastery of subject matter required. May be repeated for credit. Individual contract required. P/NP or letter grading.

199. Directed Research in Atmospheric and Oceanic Sciences. (2 to 4) Tutorial, to be arranged. Limited to juniors/seniors and required for Mathematics/ Atmospheric and Oceanic Sciences majors. Supervised individual research or investigation under guidance of faculty mentor. Cumulating paper or project required. May be repeated for credit. Individual contract required. P/NP or letter grading.

Graduate Courses


200B. Introduction to Dynamics of Earth System. (4) Lecture, three hours. Overview of general circulation of atmosphere and ocean; global energy balances; coupled circulations (such as El Niño); mesoscale, synoptic, and tropical phenomena; boundary layers, clouds, and convection; biogeophysical cycles; climate variability and change. SU or letter grading.


201C. Atmospheric and Oceanic Turbulence. (4) Lecture, three hours. Requisite: course 200A. Recommended: course 201A. Turbulent flows that occur on relatively small scales (~10 km) in both atmosphere and ocean. Classical homogeneous, shear, convective, and geophysical turbulence and the geometric and statistical modification due to stratification, Earth's rotation, and water phase changes. S/U or letter grading.


M203A. Introduction to Atmospheric Chemistry. (4) (Same as Civil Engineering M262A.) Lecture, three hours. Requisite for undergraduates: Chemistry 20B. Principles of chemical kinetics, thermochemistry, spectroscopy, and photochemistry; chemical composition and history of Earth's atmosphere; biogeochemical cycles of key atmospheric constituents; basic photochemistry of troposphere and stratosphere, upper atmosphere chemical processes; air pollution; chemical composition of stratosphere. S/U or letter grading.

203B. Introduction to Atmospheric Physics. (4) Lecture, three hours; discussion, one hour. Principles of radiative transfer; absorption, emission, and scattering of short and long wave radiation; radiative budget consideration; aerosols in atmosphere; principles of water droplet and ice crystal formation; diffusion and accretion; precipitation processes; radiative forcings of clouds/aerosols and climate feedback. S/U or letter grading.


217. Mesoclimates. (4) Lecture, three hours. Global distribution of climate regimes with spatial scales smaller than 100 km. Mechanisms maintaining meso-
229. Mesoscale Modeling. (4) Lecture, three hours. Requisites: courses 201C, 223B. Numerical and analytical modeling of convective and mesoscale motions, from shallow heat sources to large complex systems. Model frameworks, assumptions, parameterizations, and solution of modeling efforts in understanding dynamic structure and behavior of systems. S/U (for majors with consent of instructor after successful completion of written and oral comprehensive examination and for nonmajors at discretion of major department) or letter grading.

230A. Atmospheric Chemistry I. (4) Lecture, three hours. Requisites: course 203A. Photochemistry of troposphere; physical chemistry of surfaces and solutions; precipitation chemistry and acid rain; atmospheric organic chemistry; regional and global biogeochemical cycles; current issues in global change. S/U (for majors with consent of instructor after successful completion of written and oral comprehensive examination and for nonmajors at discretion of major department) or letter grading.

230B. Atmospheric Chemistry II. (4) Lecture, three hours. Requisites: course M203A. Photochemistry of stratosphere and mesosphere; basic ionospheric processes; stratospheric pollution and ozone layer; physical chemistry of stratospheric clouds and aerosols; comparative photochemistry of planetary atmospheres; observational techniques and results. S/U (for majors with consent of instructor after successful completion of written and oral comprehensive examination and for nonmajors at discretion of major department) or letter grading.

232. Chemical Transport Modeling. (4) Lecture, three hours. Requisites: courses 230A, 230B. Equations of tracer transport and chemical kinetics modeling in three dimensions; numerical techniques; coupled simulations of gas-phase and aerosol microphysical processes; comparison with observational results; current problems in tracer modeling. S/U (for majors with consent of instructor after successful completion of written and oral comprehensive examination and for nonmajors at discretion of major department) or letter grading.

235. Ocean Biogeochemical Dynamics and Climate. (4) (Same as Ecology and Evolutionary Biology M238.) Lecture, three hours. Interaction of ocean biogeochemical cycles and system. Biogeochemical processes controlling carbon dioxide and oxygen in oceans and atmosphere over time scales from million years to several years. Anthropogenic perturbations of ocean and climate. Response of ocean ecosystems to past and future global changes. Use of isotopes to study ocean biogeochemical cycles and climate. Interactions between biogeochemical cycles on land and in ocean. S/U or letter grading.


CM237. Aquatic Geomicrobiology. (4) (Same as Earth, Planetetary, and Space Sciences CM241.) Lecture, three hours. Requisites: courses M105 or Earth, Planetetary, and Space Sciences C107. Fundamental geomicrobiological metallimorphisms and biogeochemical reactions occurring in aquatic ecosystems, how they impact their environment, and how they interact in complex ecosystems such as methane seeps, hydrothermal vents, coral reefs, microbial mats, or deep biosphere. Metabolisms include different photosynthetic, chemotrophic, and chemooautotrophic pathways. Interpretation of geochemical profiles and understanding of how microorganisms govern mineralization and element cycling in aquatic systems. Concurrently scheduled with course CM114. S/U or letter grading.

238. How to Write and Publish Scientific Paper. (4) Lecture, three hours. Recommended preparation: previous experience preparing scientific manuscripts. Introduction to process of scientific manuscript writing and publishing. Offers insights into fun and frustration of manuscript writing, important rules for manuscript structure and scientific language, and advice on how to deal with review process. Students gain familiarity with general principles of successful publishing. Adapts to different stages of manuscript writing and publishing by answering when are data ready for publishing, where to publish, how to structure manuscript, best way to present data, how to properly get out messages, and writing ethics to consider, how to effectively use citation program, how to communicate with reviewers and editors, and efficient ways to manage coauthors. S/U or letter grading.

240A. Radar Meteorology. (4) Lecture, three hours. Radar detection of spherical and nonspherical parti- cles; use of radar in studying size distributions of cloud and precipitation particles, precipitation intensities and amount, upward and downward wind speed, and turbulence; radar observations of convective cloud systems, thunderstorms, tornadoes, hurricanes, squall lines, and fronts; clear air echoes. S/U (for majors with consent of instructor after successful completion of written and oral comprehensive examination and for nonmajors at discretion of major department) or letter grading.

C240B. Remote Sensing of Atmospheric and Oceanic Systems. (4) Lecture, three hours. Requisites: Physics IC or 68B. Theory and techniques of remote sensing: atmospheric spectroscopy, scattering, and polarization; passive and active techniques; relevant satellite systems; inversion methods involving imaging of clouds, aerosols, temperature, precipitation, and trace constituents; remote sensing of oceans and biosphere. Concurrently scheduled with course C160. S/U for majors with consent of instructor after successful completion of written and oral comprehensive examination and for nonmajors at discretion of major department) or letter grading.

244A. Atmospheric Radiation. (4) Lecture, three hours. Requisite: course 203B. Presentation of computational methods for solar and thermal infrared radiative fluxes and heating rates in clear, aerosol, and cloudy atmospheres. Use of user-friendly computer code required to perform calculations of radiative fluxes and heating rates in various atmospheric conditions for climate applications. S/U or letter grading.


245B. Coupled-Climate Interactions. (4) Lecture, three hours. Requisite: course 203B. Recommended requisite: course 203A. Study of how aerosols can affect weather and climate by interacting with clouds through their potential to act as cloud condensation or ice nuclei and with radiation through their ability to scatter and absorb solar and terrestrial radiation. Or- igins of large uncertainty estimates attributed to aerosol-cloud and aerosol-radiation interactions in cli- mate assessments and understanding of cloud feedbacks and discussion of scientific publications. S/U or letter grading.
Upper Atmosphere and Space Physics

M250A. Solar System Magnetohydrodynamics. (4) (Formerly numbered 250A) (Same as Earth, Planetary, and Space Sciences M281A). Lecture, three hours; recitation, two hours. Requisite: course C205A. Derivation of MHD equations with two fluid aspects, generalized Ohm’s law, small amplitude waves, discontinuities, shock waves, and instabilities. Applications to statics and dynamics of solar wind and planetary magnetosphers and to solar wind/magnetosphere/ionosphere coupling. S/U (for majors with consent of instructor after successful completion of written and oral comprehensive examination and for nonmajors at discretion of major department) or letter grading.

250B. Solar System Microscopic Plasma Processes. (4) Lecture, three hours; recitation, two hours. Requisite: course C205A. Adiabatic charged particle dynamics; incoherent radiation processes; collective effects in plasma; propagation characteristics of electrostatic and electromagnetic waves; introduction to resonant interaction between charged particles and plasma waves. S/U (for majors with consent of instructor after successful completion of written and oral comprehensive examination and for nonmajors at discretion of major department) or letter grading.

256. Ionospheric Electrodynamic. (4) Lecture, three hours. Ionospheric structure, currents, and electric fields; equatorial and high-latitudef ionospheres; ionospheric electrodynamics phenomena. S/U (for majors with consent of instructor after successful completion of written and oral comprehensive examination and for nonmajors at discretion of major department) or letter grading.

257. Radiation Belt Plasma Physics. (4) Lecture, three hours. Requisite: course 250B. Turbulent plasma instabilities and their relation to satellite observations and magnetospheric structure. Processes responsible for source, i.e., transfer of energy between the radiation belt particles. S/U (for majors with consent of instructor after successful completion of written and oral comprehensive examination and for nonmajors at discretion of major department) or letter grading.


260. Data Analysis in Atmospheric and Oceanic Sciences. (4) Lecture, three hours; laboratory, one hour. Enforced requisite: one course from 101 through M105. Overview of data analytic methods in common use in atmospheric and oceanic research. Linear models, principal component analysis (empirical orthogonal function), time-series analysis, and clustering methods. Model validation and evaluation, significance testing, error analysis, bias detection. Emphasis on practical applications, with specific examples from atmospheric and oceanic sciences. Concurrently scheduled with course C182. S/U or letter grading.

Special Studies

270. Seminar: Atmospheric Sciences. (2) Seminar, one hour. May be repeated for credit. S/U or letter grading.

271. Seminar: Atmospheric Dynamics. (2) Seminar, one hour. May be repeated for credit. S/U or letter grading.


274. Seminar: Atmospheric Chemistry. (2) Seminar, one hour. May be repeated for credit. S/U or letter grading.


276. Seminar: Mesoscale Processes. (2) Seminar, one hour. Selected topics of current research interest in convection, extratropical cyclones, and fronts. May be repeated for credit. S/U or letter grading.

277. Seminar: Coastal Ocean. (2) Seminar, one hour. Selected topics of current interdisciplinary research in marine and coastal sciences, including physical oceanography, biogeochemistry, marine biology, coastal engineering, atmospheric processes, and health-related issues. May be repeated for credit. S/U or letter grading.

281. Special Topics in Dynamic Meteorology. (2 to 4) Lecture, two hours. Individual meetings with instructor to be arranged. Content varies from year to year. S/U or letter grading.

282. Special Topics in Oceanography. (2 to 4) Lecture, two hours. Individual meetings with instructor to be arranged. May be repeated for credit. S/U or letter grading.

283. Special Topics in Atmospheric Physics. (2 to 4) Lecture, two hours. Individual meetings with instructor to be arranged. May be repeated for credit. S/U or letter grading.

284. Special Topics in Atmospheric Chemistry. (2 to 4) Lecture, two hours. Individual meetings with instructor to be arranged. May be repeated for credit. S/U or letter grading.

285. Special Topics in Solar Planetary Relations. (2 to 4) Lecture, two hours. Individual meetings with instructor to be arranged. Selected topics of current interest in solar wind, magnetosphere, or ionospheric physics. S/U or letter grading.

286. Statistical Prediction and Verification. (3) Seminar, one hour; discussion, one hour. Statistical prediction and verification. Topics include multiple linear regression, logistic regression (probability prediction), objective prediction using traditional statistical methods, ensemble methods, etc. S/U grading.

296A-296L. Advanced Topics in Atmospheric Sciences. (2 each) Discussion, two hours. Advanced study and analysis of current topics in atmospheric sciences. Discussion of current research and literature in research specialty of faculty member teaching course. May be repeated for credit. S/U grading.

296A. Ocean Dynamics. Research group meeting, two hours. 296B. Boundary Layers, Clouds, and Climate. 296C. Numerical Mesoscale Modeling. 296D. Climate Dynamics. 296E. Numerical Modeling of Atmospheric and Ocean. 296F. Hierarchical Modeling of Ocean/Atmosphere System. 296G. Upper Atmospheric and Space Physics. 296H. Recent Advances in Atmospheric Chemistry. 296I. Upper Atmospheric Dynamics. 296J. Experimental Mesoscale Meteorology. 296K. Tropical Meteorology. 296L. Geophysical Fluid Dynamics, Oceanography, and Climate. 296M. Radiation and Remote Sensing. 296N. Tropospheric Chemistry and Climate Modeling and Analysis. 296P. Atmospheric Chemistry of Air Pollution, Aerosols, and Climite. 296Q. Regional to Local Modeling of Atmospheric Composition and Climate Interactions. (2) Research group meeting, two hours. Presentation and discussion of research on modeling of air quality and atmospheric composition from local to regional scales. Some topics include research in air quality forecasting to improve predictive capability of pollution episodes, e.g., haze conditions, forest fires, dust outbreaks; data assimilation and inverse modeling, i.e., using atmospheric composition observations (e.g., satellite, ground based, airborne) to improve air quality forecasts or better constrain emission sources; and investigation on modeling of aerosols (particles in atmosphere) and their interactions with clouds and radiation, which are in part responsible for uncertainties in climate change projections. Presentations by participants and invited speakers from other research groups. S/U grading.

375. Teaching Apprentice Practicum. (1 to 4) Seminar, to be arranged. Preparation: apprentice personnel employment as teaching assistant, associate, or fellow. Teaching apprenticeship under active guidance and supervision of regular faculty member responsible for curriculum and instruction at UCLA. May be repeated for credit. S/U grading.

495. Teaching Atmospheric and Oceanic Sciences. (2) Seminar, one hour; two-day intensive training session prior to Fall Quarter. Required of all new teaching assistants and recommended for new PhD students and graduate students intending to be teaching assistants during academic year. Introduction to classroom teaching for general education and upper-division departmental courses. Topics include pedagogical techniques, preparation, academic integrity, and integration of technology and electronic communications. S/U grading.


Vivek Shetty, DDS, DMD, Dent
Kalyanam Shivkumar, MD, PhD, In Residence
Maie St. John, MD, PhD
Ren Sun, PhD
Yi Tang, PhD
Michael A. Teitell, PhD
Cun-Yu Wang, DDS, PhD
Paul S. Weiss, PhD (Presidential Professor of Chemistry)
Gerard C.L. Wong, PhD
Yi Tang, PhD
Ren Sun, PhD
Maie St. John, MD, PhD
Benjamin M. Wu, DDS, PhD
Yang Yang, PhD
Michael A. Teitell, PhD

Professors Emeriti
Chih-Ming Ho, PhD (Ben Rich Lockheed Martin Professor Emeritus of Aeronautics)
Edward R.B. McCabe, MD, PhD (Mattel Executive Endowed Professor Emeritus of Pediatrics)

Associate Professors
Corey W. Arnold, PhD, In Residence
Elisa Franco, PhD
William Hsu, PhD, In Residence
Dan Ruan, PhD, In Residence
Holden H. Wu, PhD, In Residence

Assistant Professors
Jun Chen, PhD
Liang Gao, PhD
Aaron S. Meyer, PhD
Stephanie K. Seidlits, PhD

Adjunct Professor
James C.Y. Dunn, MD, PhD

Adjunct Associate Professors
Sophia N. Barbarie, PhD
Bill J. Tawil, MBA, PhD

Adjunct Assistant Professors
Chase Linsley, PhD
George N. Saddik, PhD

Scope and Objectives
The faculty members in the Department of Bioengineering have created state-of-the-art facilities for cutting-edge research and developed an innovative curriculum for the education of the next generation of bioengineers.

The bioengineering program offers forward-looking courses dedicated to producing graduates who are well-grounded in the fundamental sciences and highly proficient in rigorous analytical engineering tools necessary for lifelong success in the wide range of possible bioengineering careers. Combined with a strong emphasis on research, the program provides a unique engineering educational experience that responds to the growing needs and demands of bioengineering.

Undergraduate Study
The bioengineering program is accredited by the Engineering Accreditation Commission of ABET.

The bioengineering major is a designated capstone major. Utilizing knowledge from previous courses and new skills learned from the capstone courses, undergraduate students work in teams to apply advanced knowledge of mathematics, science, and engineering principles to address problems at the interface of biology and engineering and to develop innovative bioengineering solutions to meet specific sets of design criteria. Coursework entails construction of student designs, project updates, presentation of projects in written and oral format, and team competition.

Bioengineering BS

Bioengineering Capstone Major

Learning Outcomes
The bioengineering major has the following learning outcomes:

- Application of advanced knowledge of mathematics, science, and engineering principles to address problems at the interface of biology and engineering
- Design of a system, component, or process to meet desired needs
- Function as a productive member of a multidisciplinary team
- Effective oral and written communication
- Identification, formulation, and solution of engineering problems

Preparation for the Major

Required: Bioengineering 10; Chemistry and Biochemistry 20A, 20B, 20L, 20A, 20AL, 30B; Civil and Environmental Engineering M20 or Computer Science 31 or Mechanical and Aerospace Engineering M20; Life Sciences 7A (satisfies school GE life sciences requirement) and 7C; Mathematics 31A, 31B, 32A, 32B, 33A, 33B, Physics 1A, 1B, 1C, 4AL.

The Major

Students must complete the following courses:

1. Bioengineering 100, 110, 120, 167L, C175, 176, 180, Electrical and Computer Engineering 100, Engineering 181EW or 182EW or 183EW or 185EW; three technical breadth courses (12 units) selected from an approved list available in the Office of Academic and Student Affairs; two capstone design courses (Bioengineering 177A, 177B)

2. Six additional major field elective courses (24 units) from Bioengineering C101, C102, C103, C104, C105, C106, C107, 121, C131, C139A, C139B, CM140, CM145, CM147, CM153, CM155, CM178, C179, 180L, CM182, CM183, CM185, CM186, CM187, 199 (8 units maximum)

Three of the major field elective courses and the three technical breadth courses may also be selected from one of the following tracks. Bioengineering majors cannot take bioengineering technical breadth courses to fulfill the technical breadth requirement.

Biomaterials and Regenerative Medicine: Bioengineering C104, C105, CM140, C147, C183, C185, 199 (8 units maximum), Materials Science and Engineering 104, 110, C110, 120, 130, 132, 143A, 150, 151, 160, 161. The above materials science and engineering courses may be used to satisfy the technical breadth requirement.

Biomaterials: Bioengineering C131, M153, 199 (8 units maximum), Chemical and Materials Science and Engineering C187L. The electrical and computer engineering or mechanical and aerospace engineering courses listed above may be used to satisfy the technical breadth requirement.

For Bioengineering 199 to fulfill a track requirement, the research project must fit within the scope of the track field, and the research report must be approved by the supervisor and vice chair.

For information on UC, school, and general education requirements, see the College and Schools chapter.

Graduate Study

Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Division website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Graduate Degrees

The Department of Bioengineering offers Master of Science (MS) and Doctor of Philosophy (PhD) degrees in Bioengineering.

Bioengineering

Lower-Division Courses

10. Introduction to Bioengineering. (2) Lecture, two hours; discussion, one hour; outside study, three hours. Preparation: high school biology, chemistry, mathematics, physics. Introduction to scientific and technological bases for established and emerging subfields of bioengineering, including biosensors, bioinstrumentation, and bio-signal processing, biomechanics, biomaterials, tissue engineering, biotechnology, biological imaging, biomedical optics and lasers, neuroengineering, and biomolecular machines. Letter grading.

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

99. Student Research Program. (1 to 2) Tutorial (supervised research or other scholarly work), three hours per week per unit. Entry-level research for lower-division students under guidance of faculty mentor. Students must be in good academic standing and enrolled in minimum of 12 units (excluding this course). Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP grading.

Upper-Division Courses

100. Bioengineering Fundamentals. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Enforced requisites: Mathematics 32A, Physics 1A. Fundamental basis for analysis and design of biological and biomedical devices and systems. Classical and statistical thermodynamic analysis of biological systems. Material, energy, charge, and force balances. Introduction to network analysis. Letter grading.


C102. Human Physiological Systems for Bioengineering I. (4) (Formerly numbered CM102.) Lecture, three hours; laboratory, two hours. Preparation: human molecular biology, biochemistry, and cell biology. Not open for credit to Physiological Science majors. Introduction to basic biological architecture and organization of human body in system (organ/ tissue) to system basis, with particular emphasis on molecular basis. Modeling/simulation of functional aspect of human body is included. Actual introduction of biomedical instruments, as well as visits to bio- medical facilities. Concurrently scheduled with course C202. Letter grading.

C104. Physical Chemistry of Biomacromolecules. (4) Lecture, three hours; discussion, two hours; out- side study, seven hours. Requisites: Chemistry 20A, 20B, 30A, Life Sciences 2, 3. To understand biological materials and design synthetic replacements, it is imperative to understand their physical chemistry. Biomacromolecules such as protein or DNA can be ana- lyzed and characterized by applying fundamentals of polymer physical chemistry. Investigation of polymer structure and conformation, bulk and solution thermodynamics and phase behavior, polymer networks, and viscoelasticity. Application of engineering principles to problems of macromolecules such as fiber, protein conformation, solvation of charged species, and separation and characterization of biomacromolecules. Concurrently scheduled with course C204. Letter grading.

C105. Engineering of Bioconjugates. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Enforced requisites: Chemistry 20A, 20B, 20L. Highly recommended: one organic chemistry course. Bioconjugate chemistry is science of coupling biomole- cules for wide range of applications. Oligonucle- otides may be coupled to one surface in gene chip, or one protein may be coupled to one polymer to en- hance stability in serum. Wide variety of bioconju- gates are used in delivery of pharmaceuticals, in sen- sors, in medical diagnostics, and in tissue engineering. Basic concepts of chemical ligation, including choice and design of coupling elements depending on type of biomolecule and desired application, such as degradable versus nondegradable linkers. Presentation and discussion of design and synthesis of synthetic biocon- jugates for some sample applications. Concur- rently scheduled with course C205. Letter grading.

C106. Topics in Bioelectricity for Bioengineers. (4) Lecture, three hours; discussion, one hour; outside study, eight hours. Requisites: Chemistry 20B, Life Sciences 2, 3, Mathematics 33B, Physics 1A, 1B, 1C. Preparation: course C102. Lecture, four hours; discussion, one hour; outside study, seven hours. Enforced requisites: Chemistry 20A, 20B, 20L, Life Sciences 7A. Overview of central topics of tissue engi- neering, with focus on how to build artificial tissues into regulated clinically viable products. Topics include biomaterials selection, cell source, delivery methods, FDA approval processes, and physical/chemical and biological testing. Case studies include skin and artifi- cial bone and cartilage, blood vessels, neuro- tissue engineering, and liver, kidney, and other organs. Clinical and industrial perspectives of tissue engi- neering products. Manufacturing constraints, clinical limitations, and regulatory challenges in design and development of tissue engineered products. Concur- rently scheduled with course C247. Letter grading.

M153. Introduction to Microscale and Nanoscale Manufacturing. (4) (Same as Chemical Engineering M153 and Mechanical and Aerospace Engineering M183B.) Lecture, three hours; laboratory, four hours; outside study, five hours. Enforced requisites: Chemistry 20A, Physics 1A, 1B, 1C, 4AL. Introduction to general manufacturing methods, mechanisms, constraints, and microfabrication and nanofabrication. Focus on con- cepts, physics, and instruments of various microfabri- cation and nanofabrication techniques that have been broadly applied in industry and academia, including various photolithography technologies, physical and chemical deposition methods, and physical and chemical etching methods for fabricating microstructures and nanostructures in modern cleanroom environment. Letter grading.


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177B. Bioengineering Capstone Design I. (4) Lecture, two hours; laboratory, six hours; outside study, four hours. Enforced requisite: course 177A. Lectures, seminars, and discussions on aspects of biomedical device and therapeutic design, including topics such as new finding, intellectual property, entrepreneurship, regulatory, and project management. Working in teams, students develop innovative solutions to address current problems in medicine and biology. Sourcing and ordering of materials and supplies relevant to student projects. Exploration of different experimental and computational methods. Scientific presentation of progress. Letter grading.

C179. Biomaterials-Tissue Interactions. (4) Lecture, three hours; outside study, nine hours. Requisite: course CM178. In-depth exploration of host cell responses to biomaterial interactions. Techniques applied to interface, and clotting, biocompatibility, animal models, inflammation, infection, extracellular matrix, cell adhesion, and role of mechanical forces. Concurrently scheduled with course CM278. Letter grading.


180L System Integration in Biology, Engineering, and Medicine I Laboratory. (4) Lecture, one hour; laboratory, four hours; clinical visits, four hours; outside study, three hours. Corequisite: course 180. Hands-on experimentation and clinical applications of selected medical therapeutic devices associated with cardiovascular and pulmonary disorders. Letter grading.

M182. Dynamic Biosystem Modeling and Simulation Methodology. (4) (Same as Computer Science M182.) Lecture, four hours; discussion, one hour; laboratory, two hours; outside study, five hours. Corequisites: Life Sciences 30A and 30B, or Mathematics 3A and 3B, or 31A and 31B. Recommended requisite or corequisite: Mathematics 3C, 32A, or 32T. For undergraduate students in engineering, computational biology, and mathematical sciences. Active learning approach. Introduction to explicit modeling and simulation of dynamic biological systems. Basic methodology for transforming biology, biochemistry, and physiology into system diagrams, graphs, and mathematical expressions for studying their behavior. Structural models, formulated from basic conservation and mass action laws and feedback concepts, are further transformed into first-order differential equations, and implemented in simulation diagrams for quantifying and exploring biosystem properties. Examples show how to use these explicit models on nature of biosystem phenomena, and frame questions and explore new ideas for research. Letter grading.

C183. Targeted Drug Delivery and Controlled Drug Release. (4) Lecture, three hours; discussion, two hours; outside study, seven hours. Corequisites: Chemistry 20A, 20B; 20L. New therapeutic approaches require comprehensive understanding of modern biology, physiology, biomaterials, and engineering. Targeted delivery of genes and drugs for treating diseases has become an important in treatment of challenging diseases and relevant to tissue engineering and regenerative medicine. Drug pharmacodynamics and clinical pharmacokinetics. Application of diffusion, transport, kinetics to problems in drug formulation and delivery to establish rational design for development of novel drug delivery systems that can provide spatial and temporal control of drug release. Introduction to biomaterials with specialized structural and interfacial properties. Exploration of both chemistry of materials and physical presentation of devices and compounds used in delivery and release. Concurrently scheduled with course CM287. Letter grading.

M184. Introduction to Computational and Systems Biology. (2) (Same as Computational and Systems Biology M184; Computer Science M184.) Lecture, two hours; outside study, four hours. Enforced requisites: courses 100, 110, 120, Life Sciences 7A; Computer Science 31, Mechanical and Aerospace Engineering M20, or Program in Computing 10A; and Life Sciences 7A. Course designed to introduce students to computational and systems modeling and computing in biology and medicine, providing motivation, flavor, culture, and cutting-edge contributions in computational biosciences and aiming for more informed basis for focused studies by students with computational and systems biology interests. Presentations by individual UCLA researchers presenting their active computational and systems biology research. P/NP grade.

C185. Introduction to Tissue Engineering. (4) Lecture, four hours; discussion, one hour; outside study, eight hours. Requisites: course CM102 or CM202, Chemistry 20A, 20B, 20L. Corequisites: Life Sciences 7A, 30A, 30B, or Mathematics 3A and 3B. Development of novel drug delivery systems that can address ethical problems about life, such as when to medically terminate pregnancy. Selection of ethical issues. Bioengineering addresses ethical problems about producing and ordering of materials and supplies relevant to student projects. Exploration of different experimental and computational methods. Scientific presentation of progress. Letter grading.

CM186. Computational Systems Biology: Modeling and Simulation of Biological Systems. (5) (Same as Computational and Systems Biology M186; Computer Science CM186, and Ecology and Evolutionary Biology M178.) Lecture, four hours; laboratory, three hours; outside study, eight hours. Dynamic biosystems modeling and computational methods for studying biomedical/biological processes and systems at multiple levels of organization. Control system, multicellular, predator-prey, pharmacokinetic (PK), pharmacodynamic (PD), and other structural modeling applied to life science problems at molecular, cellular (biochemical pathways/networks), organism, and organismic levels. Both theoretical and data-driven modeling, with focus on translating biomodeling goals and data into mathematical models and implementing them for simulation and analysis. Basics of numerical simulation algorithms, clusters, and modeling software for both and PC laboratory assignments. Concurrently scheduled with course CM286. Letter grading.

CM187. Research Communication in Computational and Systems Biology. (3) Lecture, four hours; outside study, eight hours. Requisite: course CM182 or CM186 or Computational and Systems Biology M150. Closely directed, interactive, and real research experience in active quantitative systems biology research laboratory. Direction on how to focus on topics of current interest in scientific community, appropriate to student interests and capabilities. Critiques of oral presentations and written progress reports explain how to proceed with research for search results. Major emphasis on effective research reporting, both oral and written. Concurrently scheduled with course CM287. Letter grading.

188 Special Courses in Bioengineering. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Special topics in bioengineering for undergraduate students. Topics determined by faculty and may be repeated for credit. May be repeated for credit with topic or instructor change. Letter grading.

188SA. Individual Studies for USIE Facilitators. (1) To be taken concurrently with course 298. Credit not available for temporary basis, such as those taught by resident and visiting faculty members. May be repeated for credit with topic or instructor change. Letter grading.

188SA. Individual Studies for USIE Facilitators. (1) To be taken concurrently with course 298. Credit not available for temporary basis, such as those taught by resident and visiting faculty members. May be repeated for credit with topic or instructor change. Letter grading.
180SB. Individual Studies for USIE Facilitators. (1) Tutorial, to be arranged. Enforced requisite: course 188SA. Enforced corequisite: Honors Collegium 101E. Limited to junior or senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor with permission of USIE. Individual contract with faculty mentor required. May not be repeated. Letter grading.

188SC. Individual Studies for USIE Facilitators. (2) Tutorial, to be arranged. Enforced requisite: course 188SB. Limited to junior or senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor while fulfilling USIE 88S course. Individual contract with faculty mentor required. May not be repeated for credit. Letter grading.

194. Research Group Seminars: Bioengineering. (4) Seminar, three hours. Limited to bioengineering undergraduate students who are part of research group. Study and analysis of current topics in bioengineering. Discussion of current research literature in research specialty of faculty member teaching course. Student presentation of projects in research specialty. May be repeated for credit. Letter grading.

195. Directed Research in Bioengineering. (2 to 8) Tutorial, to be arranged. Limited to juniors or seniors. Supervised individual research or investigation under guidance of faculty mentor. Capping paper or project required for credit. Requisites: approved by school. Individual contract required; enrollment petition available in Office of Academic and Student Affairs. Letter grading.

Graduate Courses


C202. Human Physiological Systems for Bioengineering I. (4) Formerly numbered CM202.) Lecture, three hours; laboratory, two hours. Preparation: human molecular biology, biochemistry, and cell biology. Not open for credit to Physiological Science majors. Introduction to basic biological chemistry and organization of human body in system (organ/tissue) to system basis, with particular emphasis on molecular basis. Modeling/simulation of functional aspect of organ system. Actual demonstration of biomedical instruments, as well as visits to biomedical facilities. Concurrently scheduled with course C102. Letter grading.

C204. Physical Chemistry of Biomacromolecules. (4) Lecture, three hours; discussion, two hours; outside study, seven hours. Requisites: Chemistry 20A, 20B, 30A, Life Sciences 2. 3. To understand biological materials and design synthetic replacements, it is imperative to understand their physical chemistry. Biomacromolecules such as protein or DNA can be analyzed and characterized by applying fundamentals of polymer physics. The investigation of polymer structure, solution, bulk and solution thermodynamics and phase behavior, polymer networks, and viscosity. Application of engineering principles to problems involving biomacromolecules such as protein conformation, solvation of charged species, and separation and characterization of biomacromolecules. Concurrently scheduled with course C104. Letter grading.

C205. Engineering of Bioconjugates. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Enforced requisites: Chemistry 20A, 20B, 20L. Highly recommended: one organic chemistry course. Bioconjugate chemistry is science of coupling biomolecules for wide range of applications. Oligonucleotides may be coupled to one surface in gene chip, or one protein may be coupled to one polymer to enhance its stability in serum. Wide variety of bioconjugates are used in delivery of pharmaceuticals, in sensors, in medical diagnostics, and in tissue engineering. Basic concepts of chemical ligation, including choice and design of conjugate linkers depending on type of biomolecule and desired application, such as degradable versus nondegradable are presented. Ligation and design of synthesis of synthetic bioconjugates for some sample applications. Concurrently scheduled with course C105. Letter grading.

C206. Topics in Bioelectricity for Bioengineers. (4) Lecture, three hours; discussion, one hour; outside study, seven hours. Requisites: Chemistry 20B, Life Sciences 7A, Mathematics 33B, Physics 1C. Coverage in depth of physical processes associated with biological membranes and channel proteins, with specific emphasis on electrophysiology. Basic physical principles governing electrostatics in dielectric media, building on complexity to ultimately address action potentials and signal propagation in nerves. Topics include Nerst/Planck and Poisson/Boltzmann equations, Nerst potential, Donnan equilibrium, GHK equations, energy barriers in ion channels, active transport, potentials, Hodgkin/Huxley equations, impulse propagation, axon geometry and conduction, dendritic integration. Concurrently scheduled with course C106. Letter grading.

C207. Polymer Chemistry for Bioengineers. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Requisite: course C204 or C205. Fundamental concepts of polymer synthesis, including step-growth (ionic, radical, metal catalyzed), and ring-opening, with focus on factors that can be used to control chain length, chain length distribution, and chain-end functionality, chain topopolymers and tacticity in copolymerization. Presentation of applications of use of different polymerization techniques. Concepts of step-growth, chain-growth, ring-opening, and coordination polymrization, and the route on polymer properties. Lectures include both theory and practical issues demonstrated through examples. Concurrently scheduled with course C107. Letter grading.


M215. Biochemical Reaction Engineering. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Enforced requisite: Chemical Engineering 101C. Use of previously learned concepts of biophysical chemistry, thermodynamics, transport phenomena, and reaction kinetics to develop tools needed for technical design and economic analysis of biological reactors. Letter grading.

M217. Biomedical Imaging. (4) Same as Electrical and Computer Engineering M217.) Lecture, three hours; discussion, one hour; outside study, eight hours. Requisite: Electrical and Computer Engineering 114 or 211A. Optical imaging modalities in biomedicine. Other nonoptical imaging modalities discussed briefly for comparison purposes. Letter grading.

M219. Principles and Applications of Magnetic Resonance Imaging. (4) Same as Physics and Biobiology in Medicine M219.) Lecture, three hours; discussion, one hour. Basic magnetic resonance (MR), physics, and image formation. Emphasis on hardware, Bloch equations, analytic expressions, image contrast mechanisms, spin and gradient encoding, spatial resolution, contrast, structure of pulse sequences, and various scanning parameters. Introduction to advanced techniques in rapid imaging, quantitative imaging, and spectroscopy. Letter grading.

220. Introduction to Medical Informatics. (2) Lecture, two hours; outside study, four hours. Designed for graduate students. Introduction to research topics in the field of medical informatics, with particular emphasis on understanding and visualization of anatomy and physiology through medical images. Topics relevant to acquisition, representation, and dissemination of anatomical knowledge in computerized clinical applications. Topics include chest, cardiac, neurology, gastrointestinal/generitory, endocrine, and musculoskeletal systems. Introduction to basic magnetic resonance, computed tomography, ultrasound, computed radiography) to provide context for imaging modalities predominantly used to view human anatomy. Geared toward physicians or nonphysicians who require fundamental understanding of human anatomy/physiology. Letter grading.

223A-223B-223C. Programming Laboratories for Medical and Imaging Informatics. I, II, III. (4-4-4) Lecture, two hours; laboratory, two hours; outside study, eight hours. Designed for graduate students. Programming laboratories to support coursework in other medical and imaging informatics courses. Exposure to programming concepts for medical applications, with focus on basic abstraction techniques used in image processing and medical informatics. Projects focus on medical image retrieval, knowledge representation, and decision support systems. Requisites: Computer Science 31, 32, Program in Computing 20A, 20B. Course 223A is requisite to 223B, which is requisite to 223C. Integrated with topics in course M227 to reinforce concepts presented with practical experience. Projects focus on understanding medical networking issues and implementation of basic protocols for healthcare environment, with emphasis on use of DICOM. Introduction to basic tools and methods used within informatics. 223B. Requisite: course 223A. Integrated with topics presented in courses 223A, M227, and M228 to reinforce concepts presented with practical experience. Projects focus on medical image manipulation and decision support systems. 223C. Requisite: course 223B. Exposure to programming concepts for medical applications, with focus on basic abstraction techniques used to extract meaningful features from medical text and imaging data and visualize results. Integrated with topics presented in courses 224B and M228 to reinforce concepts presented with practical experience. Projects focus on medical information retrieval, knowledge representation, and visualization.

224A. Physics and Informatics of Medical Imaging. (4) Lecture, four hours; laboratory, eight hours. Requisites: Mathematics 33A, B. Course 224A is integrated with topics in course M228 to reinforce concepts presented with practical experience. Projects focus on core imaging modalities. X-ray, computed tomography (CT), and magnetic resonance imaging. Topics in

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mportance. Concurrently scheduled with course C175. Letter grading.

C279. Biomaterials-Tissue Interactions. (4) Lecture, three hours; outside study, nine hours. Requisites: course CM205. Introduction to biomaterials with specialized structural properties, chemical structures, and design of multifunctional materials. Focus on current state-of-art methods and designs for precise bioconjugate formation, especially in context of living cells. Focus on recently developed bioconjugate methods and their applications in bioengineering. Students gain deep understanding of principles of bioconjugation: coupling of biologically active molecules to substrates, devices, or living cells. Exploration of applications in living cells and in vivo. Letter grading.

282. Biomaterial Interfaces. (4) Lecture, four hours; laboratory, eight hours. Requisite: course CM178 or CM278. Function, utility, and biocompatibility of biomaterials depend critically on their surface and interfa-
cial properties. Discussion of morphology and composition of biomaterials and nanoscales, macroscales, and macroscopies, techniques for characterizing structure and surface properties of biomaterial interfaces, and methods for designing and fabricating biomaterials with prescribed structure and properties in vitro and in vivo. Letter grading.

C283. Targeted Drug Delivery and Controlled Drug Release. (4) Lecture, three hours; discussion, two hours; outside study, seven hours. Requisites: Chemistry 20A, 20B, NL. New therapeutics require comprehensive understanding of modern biology, physiology, biotechnology, and clinical research. Targeted delivery of genes and drugs and their controlled release are important in treatment of challenging diseases and relevant to tissue engineering and regenerative medicine. Drug pharmacodynamics and pharmacokinetics. Application of engineering principles (diffusion, transport, kinetics) to problems in drug formulation and delivery to establish rationale for design and development of systems that can provide spatial and temporal control of drug release. Introduction to biomaterials with specialized structural and interfacial properties. Exploration of both chemical and physical presentation of devices and compounds used in delivery and release. Concurrently scheduled with course C183. Letter grading.

M284. Functional Neuroimaging: Techniques and Applications. (3) (Same as Neuroscience M285, Physics and Biophysics M286, Psychiatry M261A-M261B, Psychiatry M278.) Lecture, three hours. In-depth examination of activation imaging, including MRI and electrophysiological methods, data acquisition and analysis, experimental design, and results obtained using human and animal models. Focus on understanding technologies, how to design activation imaging paradigms, and how to interpret results. Laboratory visits and design and implementation of functional MRI experiment. S/U or letter grading.

C285. Introduction to Tissue Engineering. (4) Lecture, three hours; discussion, one hour; outside study, eight hours. Requisites: course CM102 or CM202, Chemistry 20A, 20B, 20L. Tissue engineering applies principles of biology and physical sciences with engineering approach to regenerate tissues and organs. Guiding principles for proper selection of three basic components for tissue engineering: scaffold, and molecular signals. Concurrently scheduled with course CM185. Letter grading.

CM286. Computational Systems Biology: Modeling and Simulation of Biological Systems. (3) (Same as Neuroscience CM287.) Lecture, four hours; laboratory, three hours; outside study, eight hours. Dynamic biosystems modeling and computer simulation methods for studying biological/biomedical processes and systems at multiple levels of complexity. Control system, multicompartimental, predator-prey, pharmacokinetic (PK), pharmacodynamic (PD), and other structural modeling methods applied to life sciences problems at molecular, cellular (biochemical pathways/networks), organ, and organismic levels. Both theory- and data-driven modeling, with focus on translating biomodeling goals and data into mathematical models and computer simulation and analysis. Basics of numerical simulation algorithms, with modeling software exercises in class and PC laboratory assignments. Concurrently scheduled with course CM185. Letter grading.

CM287. Research Communication in Computational and Systems Biology. (4) (Same as Computer Science CM287.) Lecture, four hours; outside study, eight hours. Requisite: course CM102 or CM286 or Computational and Systems Biology M150. Closely directed, interactive, and real research experience in active quantitative systems biology research laboratory. Focus on research hands-on work and current research in interest in scientific community, appropriate to student interests and capabilities. Critiques of oral presentations and written progress reports explain how to conduct research for peer review and to interpret results and emphasize on effective research reporting, both oral and written. Concurrently scheduled with course CM187. Letter grading.

295A-295Z. Seminars: Research Topics in Bioengineering. (2-2) Seminar, two hours; outside study, four hours. Limited to bioengineering graduate students. Advanced study and analysis of current topics in bioengineering. Discussion of current research and literature in research community of faculty member teaching course. Student presentation of projects in research specialty. May be repeated for credit. S/U grading. 295A, Biomaterial Research, 295B, Biomaterials and Tissue Engineering M256C, M256D, M256E, M256F, M256G. M256H. Biomedical Imaging and Laser Research. 295K, Hybrid Di- verse Research. 295L, Molecular Cell Bioengineering Research. 295M, Biopolymer Materials and Chemistry. 295N, Biomicrofluidics and Nanotechnology Research. 295H, Biomimetic System Research. 295J, Biophysical and Epigenetic Medicine. 295K, Advanced Modeling Methodology for Dynamic and Biomedical Systems. (3) (Same as Computer Science M296A and Medicine M270C.) Lecture, four hours; outside study, eight hours. Requisite: Electrical Engineering 141 or Mathematics 115A or Mechanical Engineering 171A or Aerospace Engineering 171A. Development of dynamic systems modeling methodology for physiological, biomedical, pharmaceutical, chemical, and related systems. Control system, multicom-
patent, nonpatent, and input/output models, linear and nonlinear. Emphasis on model applications, limitations, and relevance in biomedical sciences and other limited data environments. Problem solving in PC laboratory. Letter grading.

M296B. Optimal Parameter Estimation and Experiment Design for Biomedical Systems. (4) (Same as Biostatistics M270, Computer Science M296B, and Medicine M270D.) Lecture, four hours; outside study, eight hours. Requisite: course M296A or M296A or Biostatistics 220. Estimation methodology and model parameter estimation algorithms for fitting dynamic system models to biomedical data. Model diagnostics. Theory and algorithms for designing optimal experiments for developing and quantifying models, with special focus on optimal sampling schedule design for kinetic models. Exploration of PC software for model building and optimal experiment design via applications in physiology and pharmacology. Letter grading.

M296C. Advanced Topics and Research in Biomedical Systems Modeling and Computing. (4) (Same as Computer Science M296C and Medicine M270E.) Lecture, four hours; outside study, eight hours. Requisite: course M296B. Research techniques and experience on special topics involving models, modeling methods, and model/computing in biomedical and medical sciences. Review and critique of literature. Research problem solving and formulation. Approaches to solutions. Individual MS- and PhD-level project training. Letter grading.

M296D. Introduction to Computational Cardiology. (4) (Same as Computer Science M296D.) Lecture, four hours; outside study, eight hours. Requisite: course CM186. Introduction to mathematical modeling and computer simulation of cardiac electrophysiology process. Ionic models of action potential (AP), Theory of AP propagation in one-dimensional and two-dimensional cardiac tissue. Simulation on sequential and parallel supercomputers, choice of numerical algorithms, to optimize accuracy and to provide computational stability. Letter grading.

298. Special Studies in Bioengineering. (4) Lecture, four hours; outside study, eight hours. Study of selected topics in bioengineering taught by resident and visiting faculty members. May be repeated for credit. Letter grading.

299. Seminar: Bioengineering Topics. (2) Seminar, two hours outside study, four hours. Designed for graduate bioengineering students. Seminar by leading academic and industrial bioengineers from UCLA, other universities, and bioengineering companies such as Baxter, Bio-Med, MDS, and Guidant on development and application of recent technological advances in discipline. Exploration of cutting-edge developments and challenges in wound healing models, stem cell biology, angiogenesis, signal transduction, gene therapy, cDNA microarray technology, bioartificial cultivation, nano- and micro-hybrid devices, scaffold engineering, and bioinformatics. S/U grading.

375. Teaching Apprentice Practicum. (1 to 4) Seminar, to be arranged. Preparation: apprentice personnel employment as teaching assistant, associate, or fellow. Teaching apprenticeship under active guidance and supervision of regular faculty member responsible for curriculum and instruction at UCLA. May be repeated for credit. S/U grading.

495. Teaching Assistant Training Seminar. (2) Seminar, two hours; outside study, four hours. Limited to graduate bioengineering students. Required of all departmental teaching assistants. May be taken concurrently while holding TA appointment. Seminar on communicating bioengineering and biomedical engineering principles, and methods; teaching assistant preparation, organization, and presentation of material, including use of visual aids, grading, advising, and rapport with students. S/U grading.

596. Directed Individual or Tutorial Studies. (2 to 6) Tutorial, to be arranged, limited to graduate bioengineering students. Petition forms to request enrollment may be obtained from program office. Supervised investigation of advanced technical problems. S/U grading.

597A. Preparation for MS Comprehensive Examination. (2 to 12) Tutorial, to be arranged. Limited to graduate bioengineering students. Reading and preparation for MS comprehensive examination. S/U grading.

597B. Preparation for PhD Preliminary Examinations. (2 to 16) Tutorial, to be arranged. Limited to graduate bioengineering students. S/U grading.

597C. Preparation for PhD Oral Qualifying Examination. (2 to 16) Tutorial, to be arranged. Limited to graduate bioengineering students. Preparation for oral qualifying examination, including preliminary research on dissertation. S/U grading.

598. Research for and Preparation of MS Thesis. (2 to 12) Tutorial, to be arranged. Limited to graduate bioengineering students. Supervised independent research for MS candidates, including thesis prospectus. S/U grading.

599. Research for and Preparation of PhD Dissertation. (2 to 16) Tutorial, to be arranged. Limited to graduate bioengineering students. Usually taken only after students have been advanced to candidacy. S/U grading.

**Bioinformatics**

**Interdepartmental Program College of Letters and Science**

172 Boyer Hall
Box 951570
Los Angeles, CA 90095-1570

Bioinformatics

310-825-0068

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**Scope and Objectives**

Bioinformatics is defined broadly as the study of the inherent structure of biological information. It is the marriage of biology and information sciences. Examples of current bioinformatics research include the analysis of gene and protein sequences to reveal protein evolution and alternative splicing, the development of computational approaches to study and predict protein structure to further understand of protein function, the analysis of mass spectrometry data to understand the connection between phosphorylation and cancer, the development of computational methods to utilize expression data to reverse engineer gene networks in order to more completely model cellular biology, and the study of population genetics and its connection to human disease.

Graduates in bioinformatics can expect to engage in any combination of research, teaching, clinical service, and consultation. With universities and research centers there is a growing need for bioinformatics researchers who can analyze new sources of high-throughput experimental data in biology, medicine, and bioengineering. Biotechnology and pharmaceutical companies also seek bioinformatics graduates for applied research on disease—and drug discovery. Medical centers are also increasingly hiring bioinformatics graduates as genomics data become important in medical research and clinical applications.

**Graduate Study**

Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Division website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

**Graduate Degrees**

The Bioinformatics Program offers Master of Science (MS) and Doctor of Philosophy (PhD) degrees in Bioinformatics.

**Bioinformatics Graduate Courses**

201. Seminar: Advanced Methods in Computational Biology. (2) (Formerly numbered M252.) Seminar, one hour discussion, one hour. Designed for advanced graduate students. Examination of computational methodology in bioinformatics and computational biology through presentation of current research literature. How to select and apply methods from computational and mathematical disciplines to problems in bioinformatics and computational biology; development of novel methodologies. S/U or letter grading.

202. Bioinformatics Interdisciplinary Research Seminar. (4) (Formerly numbered M202.) Seminar, two hours; discussion, two hours. Concrete examples of how biological questions about genomics data map to and are solved by methodologies from other disciplines, including statistics, computer science, and mathematics. May be repeated for credit. S/U or letter grading.

M221. Introduction to Bioinformatics. (4) (Formerly numbered M260A.) (Same as Chemistry CM260A, Computer Science CM221, and Human Genetics M260A.) Lecture, four hours; discussion, two hours. Requisites: Computer Science 32 or Program in Computing 10C with grade of C- or better, and one course from Biostatistics 100A, Civil Engineering 110, Electrical Engineering 131A, Mathematics 170A, or Statistics 100A. Prior knowledge of biology not required. Introduction to bioinformatics for engineering students as well as students from biological sciences and medical school. Introduction to bioinformatics and methodologies, with emphasis on concepts and inventing new computational and statistical techniques to analyze biological data. Focus on sequence analysis and alignment algorithms. S/U or letter grading.

M222. Algorithms in Bioinformatics. (4) (Formerly numbered M260B.) (Same as Chemistry CM260B and Computer Science CM222.) Lecture, four hours; discussion, two hours. Requisites: Computer Science 32
275A. Applied Bioinformatics Lab for Biologists: Fundamentals. (2) Laboratory, six hours (five weeks). Introduction to contemporary methods and techniques in bioinformatics that are used to analyze high-throughput genomic data. Topics include introduction to UNIX, Next Generation Sequencing (NGS) data analysis, CIP-seq, BS-seq and RNA-seq, and others. Letter grading.

275B. Applied Bioinformatics Lab for Biologists: Intermediate. (2) Laboratory, six hours (five weeks). Requirements: course 275A. Contemporary methods and techniques in bioinformatics that are used to analyze high-throughput genomic data. Topics include Galaxy server, R, MATLAB, Python, and variant calling. Letter grading.

296. Seminar: Research Topics in Bioinformatics. (2) Seminar, to be arranged; discussion, three hours. Advanced study and analysis of current research topics in bioinformatics. Discussion of current research and literature in research specialty of faculty member teaching course. May be repeated for credit. S/U grading.

375. Teaching Apprentice Practicum. (1 to 4) Seminar, to be arranged. Preparation and apprentice personnel employment as teaching assistant, associate, or fellow. Teaching apprenticeship under active guidance and supervision of regular faculty member responsible for curriculum and instruction at UCLA. May be repeated for credit. S/U grading.

596. Directed Individual Study or Research in Bioinformatics. (2 to 12) Tutorial, to be arranged. May be repeated for credit. S/U grading.

597. Preparation for MS Comprehensive Examination or Ph.D Qualifying Examinations. (2 to 12) Tutorial, to be arranged. May be repeated for credit. S/U grading.

598. MS Thesis Research and Writing. (2 to 12) Tutorial, to be arranged. May be repeated for credit. S/U grading.

599. PhD Dissertation Research and Writing. (2 to 12) Tutorial, to be arranged. May be repeated for credit. S/U grading.

**BIOLOGICAL CHEMISTRY**

David Geffen School of Medicine

310 Biomedical Sciences Research Building

Box 951737

Los Angeles, CA 90095-1737

Biological Chemistry

310-825-4625

Siavash K. Kurdistani, MD, Chair

Michael F. Carey, PhD, Vice Chair

John J. Colicelli, PhD, Vice Chair

**Scope and Objectives**

Biological chemistry has grown to include studies of cellular, molecular, and developmental biology, molecular genetics and genetic engineering, and many aspects of the health sciences. The research activities of the department include these areas as well as the classic topics of metabolism, enzymology, and biomolecular structure. Courses and seminar programs are designed to provide students with the necessary background and approach to encourage their continuing growth in these rapidly changing areas of science.

Interaction with other graduate programs provides access to scientists in a variety of related disciplines. Through its primary affiliation with the Geffen School of Medicine, the Department of Biological Chemistry is also involved in the basic education of students who will be physicians, dentists, and other health professionals. Furthermore, students become involved in laboratory research in the department. In part because of this breadth of experience students find careers in many aspects of basic and applied scientific research and education.

**Biological Chemistry Lower-Division Courses**

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

99. Student Research Program. (1 to 2) Tutorial (supervised research and preparation for future employment as research assistant). May be repeated. S/U grading.

**Upper-Division Courses**

M140. Cancer Cell Biology. (5) (Same as Molecular, Cell, and Developmental Biology M140.) Lecture, three hours; discussion, one hour. Requirements: Molecular, Cell, and Developmental Biology 165A. Cancer causes and genetics. Effects of cell transformation on cell growth and metabolism. Altered cell cycle, metabolism, and differentiation pathways in cancer cells. Tumor microenvironment contributions to cancer malignancy, including angiogenesis, metastasis, and immune system evasion. Letter grading.

194. Research Group Seminars: Biological Chemistry. (2) Seminar, two hours. Design, for upper-division undergraduate students, to be arranged. May be repeated. S/U grading.

199. Directed Research or Senior Project in Biological Chemistry. (2 to 8) Tutorial, two hours. Limited to seniors/juniors. Supervised individual research or investigation under guidance of faculty mentor. Culminating paper required. May be repeated for maximum of 16 units. Individual contract required. P/NP or letter grading.

**Graduate Courses**

201A-201B. Biological Chemistry. (5-5) Lecture, five hours. Preparation: organic chemistry. Open to non-medical students with consent of instructor. Primarily for first-year medical students and runs throughout School of Medicine’s second semester. General biochemistry with emphasis on mammalian systems. Structure, function, and metabolism of major cellular components. To receive credit, both courses must be taken together in same academic year. In Progress (201A) and S/U (201B) grading.

204. Advanced Topics in Cryogenic Electron Microscopy. (3) Lecture, two hours; discussion, one hour. Students master advanced topics in membrane protein biology, and learn both theory and practice of cryogenic electron microscopy (cryo-EM) as emerging technology in structural biology. Cryo-EM methodologies covered include cryotomography, single particle reconstruction, electron crystallography, and micro-scale electron diffraction.

205. Human Biological Chemistry and Nutrition Laboratory. (3) Laboratory, four hours. Open to non-medical students with consent of instructor. Experiments illustrating techniques and procedures in medically related biochemistry and nutrition, analysis of experimental results. S/U or letter grading.
M259. Mechanisms of Gene Regulation. (4) (Same as Chemistry CM259.) Lecture, four hours. Requisite: Chemistry 153B. RNA polymerase structures and mechanisms; promoter recognition and transcription cycle; mechanisms of activation; transcriptional poising and elongation control; Mediator of transcription; chromatin remodeling and modification; epigenetic regulation; cotranscriptional and transcription-coupled RNA processing; impact of transcription on mRNA processing and stability; nuclear export of mRNA. S/U or letter grading.

266A-266B-266C. Seminars: Cell, Stem Cell, and Developmental Biology. (2–2–2) Seminar, two hours. Open to undergraduate students with consent of instructor. Advanced courses in cell, stem cell, and development biology intended for graduate students working or rotating in laboratories of new cell and developmental biology home area. S/U grading.

296. Research Seminar Series in Biological Chemistry. (1) Seminar, one hour. Limited to biological chemistry students. Research presentations from second- through fourth-year graduate students related to their research. Designed to be highly interactive, with time for questions from fellow graduate students, postdoctoral students, and faculty members during and after presentations. May be repeated for credit. S/U grading.

375. Teaching Apprentice Practicum. (1 to 4) Seminar, to be arranged. Preparation: apprenticeship personnel as teaching assistant, associate, or fellow. Teaching apprenticeship under active guidance and supervision of regular faculty member responsible for curriculum and instruction at UCLA. May be repeated for credit. S/U grading.


BIOMEDICAL RESEARCH

Interdisciplinary Minor

College of Letters and Science

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Biomedical Research
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Aldons J. Lusis, PhD (Human Genetics; Medicine; Microbiology, Immunology, and Molecular Genetics)

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Megan M. McEvoy, PhD (Biological Chemistry, Society and Genetics)

Carlos Portera-Cailliau, PhD (Neurology)

Margot E. Quinlan, PhD (Chemistry and Biochemistry)

Felix E. Schweizer, PhD (Neurobiology)

Scope and Objectives

The Biomedical Research minor is designed to incorporate research into undergraduate science education at UCLA. Applications may be submitted by any UCLA student who meets the admission requirements and has the potential to satisfy the requirements. Students explore the scientific questions and experimental approaches of biomedical research. Faculty members and staff facilitate early placement of students into laboratories on campus for independent research. Students are trained to analyze research literature, present their research in oral and poster formats, and appreciate the ethical, historical, and philosophical issues facing biomedicine.

Undergraduate Study

Biomedical Research Minor

Admission to the Biomedical Research minor is competitive, and application follows completion of Biomedical Research SHA, 10H, Honors Collegium 70A, Molecular, Cell, and Developmental Biology 30H, or an approved alternative course. Applications (see the minor website) must be submitted no later than the first term of the junior year. Students must be in good academic standing and demonstrate a genuine interest in research. All degree requirements, including the specific requirements for this minor, must be fulfilled within the unit maximum set forth by the College of Letters and Science.

Required Lower-Division Courses (9 units): Biomedical Research 5HB (or an approved alternative course) and Molecular, Cell, and Developmental Biology 60.

Required Upper-Division Courses (24 units): (1) Sixteen units (four courses) of approved laboratory research through either course 198 or 199 (or an approved alternative course); (2) one history of science or philosophy of science course selected from History 179A, 199B, 180A, Neurobiology 1169, Philosophy 124, 125, 137, or 155A (or an approved alternative course); and (3) Biomedical Research 193H and 194H, or the required journal club seminars (such as Chemistry and Biochemistry 193A) for students in the Integrated and Interdisciplinary Undergraduate Research Program, MARC, or UC LEADS.

Students are expected to file a senior research thesis after completion of their 16 research units and must participate in at least one conference in which they present their research. Up to 8 units of research may be applied toward departmental requirements for the major. The research project and
the thesis may be the same as those for departmental honors.

Transfer credit for any required course is subject to approval. Students with a grade of less than B (3.0) in any minor course or a cumulative grade-point average of less than 3.0 are subject to dismissal from the minor.

A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor.

Each minor course must be taken for a letter grade. Successful completion of the minor is indicated on the transcript and diploma.

Biomedical Research

Lower-Division Courses

1A. Science in Your Time. (4) Lecture, three hours. Exploration of current topic in biomedical research beginning with two topically related layman media sources such as TED Talks. Investigation of science behind the news through reading newspaper and magazine articles. Examination of primary literature layman material is based upon. Students formulate hypotheses independently, then investigate published experiments and data banks for evidence supporting or refuting hypotheses. Letter grading.

5HA. Biomedical Research: Concepts and Strategies. (4) Lecture, three hours. Designed for freshmen/sophomores. Exploration of scientific concepts and experimental approaches through seminars by UCLA faculty members on their cutting-edge research. Topics may include areas of study such as cancer, stem cells, and infectious disease, as well as more basic research in cell and molecular biology. Letter grading.

5HB. Biomedical Research: Essential Skills and Concepts. (4) Lecture, three hours; discussion, one hour. Requisite: course 5HA. Designed for freshmen/sophomores. Exploration of scientific concepts and experimental approaches through seminars by UCLA faculty members on their cutting-edge research. Topics may include areas of study such as cancer, stem cells, and infectious disease, as well as more basic research in cell and molecular biology. Letter grading.

10H. Research Training in Genes, Genetics, and Genomics. (6) Lecture, 90 minutes; laboratory, six hours; computer laboratory, 90 minutes. Limited to 30 students. Basic training in biological research, including techniques in genetics, model organism, bioinformatics, functional genomics, electron microscopy. Part of Undergraduate Research Consortium in Functional Genomics sponsored by Howard Hughes Medical Institute Professors Program. Letter grading.

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

89. Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to lower-division lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. Letter grading.

89HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to lower-division lecture course. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

193H. Journal Club Seminars: Current Topics in Biomedical Research. (2) Seminar, three hours. Limited to Biomedical Research minor students. Presentation and discussion of recent papers from primary literature in biosciences. Letter grading.

194H. Research Group Seminars: Data Presentation in Biomedical Research. (2) Seminar, three hours. Requisite: course 193H. Limited to Biomedical Research minor students. Preparation of oral presentations based on student laboratory research at UCLA. Letter grading.

199. Directed Biomedical Research. (4) Tutorial, 12 hours. Limited to Biomedical Research minor students. Supervised individual research under guidance of faculty mentor. Culminating report describing progress and signed by student and faculty mentor required. May be repeated for credit. Individual contract required. Letter grading.
netics, bioinformatics, and immunology, as well as other areas. Further, biostatisticians spend a considerable amount of time designing and evaluating the statistical methodology used in those projects. The Department of Biostatistics offers MS and PhD degrees in Biostatistics and, through the Fielding School of Public Health, the MPH and DrPH degrees with a specialization in biostatistics (see Public Health Schoolwide Programs). All students receive a balanced education, blending theory and practice.

A degree in biostatistics prepares students for work in a wide variety of challenging positions in government, industry, and education. Graduates have found careers involving teaching, research, and consulting in such fields as medicine, public health, life sciences, and survey research. There has always been a strong demand for well-trained biostatisticians; graduates have had little difficulty finding employment well suited to their particular interests.

Graduate Study

Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Division website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Graduate Degrees

The Department of Biostatistics offers Master of Science (MS) and Doctor of Philosophy (PhD) degrees in Biostatistics.

Biostatistics

Lower-Division Courses
19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

99. Student Research Program. (1 to 2) Tutorial (supervised research or other scholarly work), three hours per week per unit. Entry-level research for lower-division students under guidance of faculty mentor. Students must be in good academic standing and enrolled in minimum of 12 units (excluding this course). Individual contract required; consult Undergraduate Research Center. May be repeated, P/NP grading.

Upper-Division Courses
100A. Introduction to Biostatistics. (4) Lecture, three hours; discussion, one hour; laboratory, one hour. Preparation: credit or course 110A. Introduction to methods and concepts of statistical analysis. Sampling situations, with special attention to those occurring in biological sciences. Topics include distributions, test of hypotheses, estimation, types of error, significance and confidence levels, sample size. P/NP or letter grading.

100B. Introduction to Biostatistics. (4) Lecture, three hours; discussion, one hour; laboratory, one hour. Requisite: course 100A. Not open for credit to students with credit for course 110B. Introduction to analysis of variance, linear regression, and correlation analysis. P/NP or letter grading.

197. Individual Studies in Biostatistics. (2 to 4) Tutorial, four hours. Limited to juniors/seniors. Individual intensive study, with scheduled meetings to be arranged between faculty member and student. As-signed reading and tangible evidence of mastery of subject matter required. May be repeated for credit. Individual contract required. P/NP or letter grading.

Graduate Courses

200A. Methods in Biostatistics A. (4) Lecture, three hours; discussion, one hour; laboratory, one hour. First course in biostatistical methods intended for graduate students in biostatistics. Preparation: students pursuing careers as practicing biostatisticians. Prior knowledge of probability or statistics not assumed. Students should have working knowledge of calculus and be very comfortable with mathematical and algebraic reasoning. Introduction to basic concepts in analysis, presentation of data, and statistical aspects of design of studies. Special emphasis is given to application of statistical methods to public health, medical, biological, and health sciences. Interpretation and communication of statistical findings is stressed. Focus on methodology, applications, and concepts rather than mathematical statistics or probability theory. S/U or letter grading.


200C. Methods in Biostatistics C. (4) Lecture, three hours; discussion, one hour; laboratory, one hour. Pre- ferred preparation: courses 200A, 200B, and previous coursework in linear algebra. Described for students pursuing graduate degrees in biostatistics. Generalized linear models, description, and analysis of discrete data with applications to public health. Students are trained to identify different types of discrete data; use statistical software package STATA to manage, summarize, and analyze data; use appropriate statistical techniques for analyzing public health data using generalized linear models; apply generalized estimating equations for analyzing longitudinal data; and write formal statistical report of data analysis for public health researcher. S/U or letter grading.

210A. Topics in Applied Regression. (4) Lecture, three hours; discussion, one hour; laboratory, one hour. Requisites: courses 200A and 100B, or 200A and 200B. Designed for master’s and doctoral students in fields outside biostatistics. Topics in linear regression and other related methods. When and how to use linear regression methods and how to properly interpret results. Heavy emphasis on practical application as opposed to theoretical development. S/U or letter grading.

210B. Topics in Applied Regression. (4) Lecture, three hours; discussion, one hour; laboratory, one hour. Requisite: course 201A. Further studies in multiple linear regression, including applied multiple regression models, regression diagnostics and model assessment, factorial and repeated measure analysis of variance models, nonlinear regression, logistic regression, propensity scores, matching versus stratification, Poisson regression, and classification trees. Applications to biomedical and public health scientific problems. Letter grading.

220A-202B. Mathematical Statistics A, B. (4-4) Lecture, three hours; discussion, one hour. Designed primarily for students pursuing PhD, MS, and PhD degrees in biostatistics. Introduction to main principles of probability, random variables, discrete and continuous distributions, multivariate distributions, and distributions of functions of random variables. S/U or letter grading. 202B. Requisite: course 202A.

220C. Theory of Bayesian Statistics. (4) Lecture, three hours; discussion, one hour. Requisites: courses 200A, 200B, 200C, or equivalent, or consent of instructor. Mathematical meanings of Bayesian approach to statistical inference; closed form computations; computation; hierarchical models; model selection; hypothesis testing; prior specification; comparative inference; nonparametric methods. S/U or letter grading.

203A. Introduction to Data Management and Statistical Computing. (4) Formerly numbered 403A. Lecture, three hours. Preparation: laboratory, two hours. Prior knowledge of programming not assumed. Coverage of mechanics of converting data from whatever form it may arrive and preparing it for processing by statistical software. Letter grading.

203B. Introduction to Data Science A. (4) Lecture, three hours; laboratory, two hours. Requisite: course 203A. Principles of data science. Topics include Health Insurance Portability and Accountability Act (HIPAA) and data ethics, data retrieval, data merging and cleaning, data visualization and web presentation, reproducible research, collaborative research, cluster computing, and cloud computing. S/U or letter grading.

M208. Introduction to Demographic Methods. (4) (Same as Community Health Sciences M208, Economics M208, and Sociology M213A.) Lecture, four hours. Preparation: one introductory statistics course. Introduction to methods for demographic analysis. Topics include demographic rates, standardization, decomposition of differences, life tables, survival analysis, cohort analysis, birth interval analysis, models of population growth, stabilization, population projection, and demographic data sources. Letter grading.

210. Statistical Methods for Categorical Data. (4) (Formerly numbered M210.) Lecture, four hours; discussion, one hour. Requisites: courses 100B, Statistics 200A, or equivalent. Linear methods for analyzing categorical data; data analysis and interpretation of their applications and limitations. S/U or letter grading.


216. Mathematical Methods for Biostatistics. (2) Lecture, two hours. Requisites: Mathematics 31A, 31B, 33A. Designed for incoming first-year MS and PhD students. Review, and in some cases introduc- tion, of specialized topics in linear algebra, multivari- able calculus, and scientific computing. Interplay be- tween mathematical methods and scientific computing within R statistical computing environment. Detailed training on numerical algorithms used in linear algebra and probabilistic simulations commonly used by biostatisticians. S/U or letter grading.


219. Special Topics: Graphical Methods. (4) Lecture, three hours; laboratory, one hour. Requisite: course 200A (may be taken concurrently). Graphical data analysis emphasizes use of visual displays of quantitative data to gain insight into data structure by exploring patterns and relationships, and to enhance classical numerical analyses, especially assumption validity checking. Principles of graph construction, graphical methods, and perception issues. S/U or letter grading.
emerging pathogens. S/U or letter grading.

M232. Statistical Analysis of Incomplete Data. (4) (Same as Biostatistics M232.) Lecture, three hours; laboratory, one hour. Requisite or corequisite: course 200C. Recommended prerequisite or corequisite: 200C, 202B or equivalent. Sources of incomplete data, recognizing familiar methods as solutions to missing-data problems, missing-data mechanisms, weighting and imputation strategies, model-based and design-based inference, likelihood-based and Bayesian methods, statistical computing strategies, multivariate models for diverse data types, nonignorable models, review of available statistical software. Emphasis on incorporating incomplete-data perspective into broader statistical-science framework. S/U or letter grading.

M233. Statistical Issues in Global Health. (4) Lecture, three hours; discussion, one hour. Requisite: course 200C. Consideration of statistical issues in addressing contemporary global health challenges. Topics include statistical methods for analyzing surveillance data, methods and models for measuring and forecasting health of populations, epidemic modeling, agent-based modeling, evaluating and addressing sampling issues in public health, design and analysis of large-scale public health interventions such as vaccine trials and cancer screening programs. Applications to both infectious and noninfectious diseases. Case studies include prevalent conditions, pandemic flu, and topical global health challenges such as recent outbreaks of emerging pathogens. S/U or letter grading.

M234. Applied Bayesian Inference. (4) (Same as Biostatistics M234.) Lecture, three hours; laboratory, one hour; laboratory, one hour. Requisite or corequisite: course 200C, 202B or equivalent. Bayesian approach to statistical inference, with emphasis on biomedical applications and concepts rather than mathematical theory. Topics include large sample Bayes inference from likelihoods, noninformative and conjugate priors, empirical Bayes, Bayesian approaches to linear and nonlinear regression, model selection, Bayesian hypothesis testing, and numerical methods. S/U or letter grading.

M235. Causal Inference. (4) (Same as Psychiatry M232.) Lecture, three hours; discussion, one hour. Requisite: course 200B or equivalent. Probability and causality, observational studies, randomized experiments, propensity scores, competing perspectives on path analysis and graphical/structural-equation models, experiments with noncompliance, principal stratification, decision making when causality is disputed, role of ethics in decision making. S/U or letter grading.

M236. Longitudinal Data. (4) (Same as Biostatistics M282.) Lecture, three hours; laboratory, one hour. Requisite: course 200B or another substantial regression course. Emphasis on continuous responses, for which multivariate normal model may be assumed. Students learn how to think about longitudinal data, plot data, and how to specify mean and variance of longitudinal processes. Topics include introduction to clustered, multivariate, and discrete longitudinal data. S/U or letter grading.

M237. Applied Genetic Modeling. (4) (Same as Biostatistics M207B and Human Genetics M207B.) Lecture, three hours; laboratory, one hour. Requisite or corequisite: courses 200A, 200B, 202B (may be taken concurrently) or equivalent coursework or consent of instructor. Covers basic genetic concepts (prior knowledge of human genetics is not required). Topics include statistical methodology underlying genetic analysis of both quantitative and qualitative complex traits. Laboratory for hands-on computer analysis of genetic data; laboratory reports required. Course complements M272; students may take either and are encouraged to take both. S/U or letter grading.

M238. Methodology of Clinical Trials. (4) (Same as Biostatistics M284.) Lecture, three hours; discussion, one hour. Requisite: course 200B. Introductory material on design and analysis of clinical trials, including adaptive methods for early and late randomized trials. S/U or letter grading.

M239. Mathematical and Statistical Phylogenetics. (4) (Same as Biostatistics M211 and Human Genetics M211.) Lecture, three hours; laboratory, one hour. Theoretical models in molecular evolution, with focus on phylogenetic techniques. Topics include evolution of molecular sequences, studies of viral evolution, phylogeny, and coalescent approaches. Examples from evolutionary biology and medicine. Laboratory for hands-on computer analysis of sequence data. S/U or letter grading.

241. Spatial Modeling and Data Analysis for Health Sciences. (4) Lecture, three hours; discussion, one hour. Requisites: courses 200A, 200B, 202A, 202B. Introduction of various methods for exploring, modeling, and analyzing spatial datasets, with emphasis on environmental/natural sciences and public health. Statistical theory and foundations for carrying out principled and scientifically rigorous inference on spatially referenced data. Emphasis on computational methods and algorithms for executing statistical modeling in practice. Practical examples and applications demonstrating use of open-source statistical software environment R for analyzing diverse fields, such as public health, environmental health, natural sciences, and economics. Letter grading.

244. Master's Seminar and Research Resources for Graduating Biostatistics MS Students. (4) Seminar, three hours. Introduction to resources for finding statistical literature. Discussion of principles of making statistical presentations and how to write statistical reports, including writing abstracts and choice of key words. S/U or letter grading.


250A. Linear Statistical Models. (4) Lecture, three hours; discussion, one hour. Requisite: course 202B. Theoretical and practical introduction: statistical theory and linear algebra. Designed for students pursuing graduate degrees in biostatistics. Theoretical foundation for linear models with applications to clonal processes and environmental problems in biomedical field. Emphasis on mathematical training and understanding of theory and applications of linear models. Letter grading.

250B. Linear Statistical Models. (4) Lecture, three hours; discussion, one hour. Requisites: courses 200A, 200B, 202C, 205A. Theoretical foundation for linear models with applications to different types of problems in biomedical field. Emphasis on mathematical training and understanding of theory and applications of linear models. Letter grading.

250C. Multivariate Biostatistics. (4) Formerly numbered 251.) Lecture, three hours; discussion, one hour. Requisites: courses 200A, 200B, 202C, 205A. Theoretical foundation for multivariate analysis with non-exclusive focus on biomedical applications. Linear models and non-linear models. Topics include ridge regression, Bayesian estimation in linear models, REML, prediction, and model selection issues. Some data analysis, instructions for STATA provided. Letter grading.

250D. Advanced Multivariate Statistical Methods. (4) Formerly numbered 255.) Lecture, three hours; discussion, one hour. Requisites: course 202A or equivalent. Mathematics 131A or consent of instructor. Survey of probability theory, with special emphasis on applications to biostatistics. Topics include probability spaces and random variables, generating functions, conditioning, discrete-time martingales, applications to finite sample analysis of statistical procedures. S/U or letter grading.

255B. Advanced Probability and Statistics. (4) Formerly numbered 256.) Lecture, three hours; discussion, one hour. Requisites: course 255A or consent of instructor, Mathematics 131A. Survey of advanced techniques to probability and mathematical statistics, with special emphasis on applications to biostatistics. Topics include laws of large numbers, central limit theorem, concepts from stochastic processes, and applications to large sample theory in biostatistics. S/U or letter grading.

257. Computational Methods for Biostatistical Research. (4) Lecture, three hours; discussion, one hour. Requisites: course 250A or Statistics 100C, Mathematics 115A. Preparation for quantitative research in statistics and data sciences. Numerical analysis and hands-on computing techniques for handling big data. Numerical analysis topics include computer arithmetic, solving linear equations, Cholesky factorization, QR factorization, regression computations, eigenvalue problems, iterative solvers, numerical optimization, and curve fitting and analysis of experimental data. Computing techniques include basics of R programming, reproducible research using R and RStudio, collaborative research, parallel computing, and cloud computing. No prior knowledge of R assumed. S/U or letter grading.


M272. Theoretical Genetic Modeling. (4) (Same as Biostatistics M207A and Human Genetics M207A.) Lecture, three hours; discussion, one hour. Requisites: Mathematics 115A, 131A, Statistics 100B. Mathematical models in statistical genetics. Topics include population genetics, genetic epidemiology, gene mapping, design of genetics experiments, DNA sequencing, and molecular phylogeny. S/U or letter grading.

273. Classification and Regression Trees (CART) and Other Algorithms. (4) Lecture, three hours. Requisites: course 200C. Introduction to statistical tools in analysis of large datasets. Classification and regression trees as well as other adaptive algorithms. Implementation of CART software and other programs to real datasets. S/U or letter grading.

275. Advanced Survival Analysis. (4) Lecture, three hours; discussion, one hour. Requisites: courses 250A, 255. Time-to-event data arise in many fields, such as medicine, reliability theory, demography, sociology, economics, and astronomy. Overview of common stochastic process models and methods for analysis of such data. Examples include continuous-time Markov chain and semi-Markov models, and frailty and copula models. S/U or letter grading.

276. Inferential Techniques that Use Simulation. (4) Lecture, three hours; discussion, one hour. Requisites: Statistics 200A, 200B. Recommended: course 213. The goal is to introduce and apply recently developed techniques for statistical inference that use computer simulation. Topics include bootstrap, multiple imputation, data augmentation, stochastic relaxation, and sampling/importance resampling algorithm. S/U or letter grading.


285. Advanced Topics: Recent Developments. (4) Lecture, three hours; discussion, one hour. Advanced topics and developments in biostatistics not covered in Biostatistics M210 through 219 or 270 through 276 or in other courses. Possible topics include time-series analysis, classification procedures, correspondence analysis, and S/U or letter grading.

296. Seminar: Research Topics in Biostatistics. (1 to 4) Seminar, two hours. Advanced study and analysis of current topics in biostatistics. Discussion of current research and literature in research specialty of faculty member teaching course. S/U grading.

375. Teaching Apprentice Practicum. (1 to 4) Seminar, to be arranged. Teaching apprenticeship under active guidance and supervision of regular faculty member assigned and instruction at UCLA. Apprentices meet with faculty and other apprentice teachers to discuss both substance of curriculum and appropriate approaches to teaching, learning, and evaluation. May be repeated for credit. S/U grading.

400. Field Studies in Biostatistics. (4) Fieldwork, to be arranged. Field observation and studies in selected community organizations for health promotion or medical care. Students must file field placement and program training documentation on form available from Student Affairs Office. May not be applied toward MS minimum course requirement. 4 units may be applied toward 44-unit minimum total required for MPH degree. Letter grading.


402B. Biostatistical Consulting. (4) Discussion, two hours; laboratory, two hours. Requisite: course 402A. Principles and practices of biostatistical consulting. May be repeated for credit. S/U grading.

M403B. Computer Management and Analysis of Health Data Using SAS. (4) (Same as Epidemiology M403B) Lecture, three hours; laboratory, two hours. Introduction to practical issues in management and analysis of health data using SAS programming language. Cross-sectional and longitudinal population-based data sets throughout to illustrate principles of data management and analysis for addressing biomedical and health-related hypotheses. Letter grading.

406. Applied Multivariate Biostatistics. (4) Lecture, three hours; laboratory, one hour. Preparation: at least two upper-division research courses. Requisite: course 100B. Use of multiple regression, principal components, factor analysis, discriminant function analysis, logistic regression, and canonical correlation in biomedical data analysis. S/U (optional for non-division majors) or letter grading.

409. Doctoral Statistical Consulting Seminar. (2) Seminar, one hour; laboratory, four hours. Designed for doctoral students. Development of experience and expertise in collaborating with faculty in Schools of Public Health and Medicine. Students meet with investigators and develop design and protocol for data analysis, implement data protocol when data is obtained, and write up study with lead investigators. S/U grading.

410. Statistical Methods in Clinical Trials. (4) Lecture, three hours; discussion, two hours. Requisites: courses 100A, 100B. Design of studies in animals to assess antimumor response; randomization, historical controls, p-values, size of study, and stratification in human experimentation; various types of controls; prognostic factors, survivorship studies, and design of prognostic studies; organization of clinical trials—administration, comparability, protocols, clinical standards, data collection and management. S/U (optional for nonmajors) or letter grading.


413. Introduction to Pharmaceutical Statistics. (4) Lecture, three hours; discussion, one hour. Requisites: courses 100A, 100B. Exploration of various types of statistical techniques used in pharmaceutical and related industries. Topics include bioassay and other assay techniques (e.g., ELISAs and FAQs analysis), quality control techniques, and pharmacokinetic and pharmacodynamic modeling. S/U or letter grading.


495. Teacher Preparation in Biostatistics. (2) Seminar, two hours. Preparation: 18 units of cognate courses in area of specialization. May not be applied toward master’s degree minimum total course requirement. May be repeated for credit. S/U grading.

595. Effective Integration of Biostatistical Concepts in Public Health Research. (4) Tutorial, to be arranged. Enforced requisites: courses 110A, 110B, 400, 402A. Students meet weekly with their adviser and also work independently on their proposed projects. Course fosters ability of students to select relevant design and analysis techniques, synthesize knowledge, and apply insights to address public health concerns. Oral examination and written report describing how students have used biostatistical methods to assess data from public health study required. May be repeated for credit. S/U grading.

596. Directed Individual Study or Research. (2 to 8) Tutorial, to be arranged. Limited to graduate students. Individual guided studies under direct faculty supervision. Only 4 units may be applied toward MPH and MS minimum total course requirement. May be repeated for credit. Letter grading.

597. Preparation for Master’s Comprehensive or Doctoral Qualifying Examinations. (2 to 12) Tutorial, to be arranged. Limited to graduate students. May not be applied toward any degree course requirements. May be repeated for credit. S/U grading.

599. Doctoral Dissertation Research. (2 to 12) Tutorial, to be arranged. May not be applied toward any degree course requirements. May be repeated for credit. S/U grading.

Brain and Behavioral Health

Interdisciplinary Minor

College of Letters and Science

310-206-5110

E-mail contact

Andrew J. Fuligni, PhD, Chair

Faculty Committee

Robert M. Bilder, PhD (Psychiatry and Biobehavioral Sciences, Psychology)
Christopher S. Cowell, PhD (Psychiatry and Biobehavioral Sciences)
Christopher J. Evans, PhD (Psychiatry and Biobehavioral Sciences, Psychology)
Adriana Galván, PhD (Psychiatry and Biobehavioral Sciences, Psychology)
Andrew J. Fuligni, PhD (Psychiatry and Biobehavioral Sciences, Psychology)
Christina G.S. Palmer, PhD (Human Genetics, Psychiatry and Biobehavioral Sciences, Society and Genetics)
Tara S. Peris, PhD (Psychiatry and Biobehavioral Sciences)

Scope and Objectives

Issues of brain and behavioral health have become central to the understanding of human development, well-being, and productivity. Sometimes called translational science, the focus on evidence-based prevention and treatment programs at multiple levels—individual, family, school, community—has become a primary focus of the behavioral health fields. Key features of the approach include an understanding of the basic science of the brain and behavioral issues at hand, their interaction with contextual factors, the development of programs and policies derived directly from that science, and the rigorous evaluation of those programs and policies.

Undergraduate Study

Brain and Behavioral Health Minor

The minor offers students the opportunity to learn about how to apply scientific advances to the promotion of brain and behavioral health across the lifespan. The Brain and Behavioral Health minor is intended to supplement the education of undergraduate students enrolled in the Cognitive Science, Human Biology and Society, Neuroscience, Psychobiology, and Psychology majors. As a minor, the program is able to take advantage of the core knowledge gained by students from their majors and focus on how to use that knowledge to develop programs and policies focusing on brain and behavioral health. The program offers students depth in a topic (e.g., autism, dementia) that is required when trying to solve a pressing problem.

To enter the minor students must have an overall grade-point average of 2.7 or better, have completed Psychiatry 79, and submit an application demonstrating interest in the application of science to improving brain and behavioral health by the end of the fall quarter of the student’s third year.

Required Lower-Division Courses (5 units): Psychiatry 79.

Required Upper-Division Courses (24 units): (1) Psychiatry 174 or 176; (2) three upper-division electives selected from Neuroscience CM123, 177, M187, 192C, Psychiatry 174 or 176 (whichever course was not applied above), 175, M182, Psychology M107, 1278, 129C, 152, 161, 164, Society and Genetics 102, M140, 141, M144; (3) two capstone courses: Psychiatry 177A, 177B. Each course must be completed with a grade of C or better.

A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor.
Each minor course must be taken for a letter grade. Successful completion of the minor is indicated on the transcript and diploma.

**Chemical and Biomolecular Engineering**

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Chemical and Biomolecular Engineering
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Jane P. Chang, PhD (William Frederick Seyer Professor of Materials Electrochemistry)
Panagiotis D. Christofides, PhD (William D. Van Vorst Professor of Chemical Engineering Education)
Yoram Cohen, PhD
James F. Davis, PhD
Vijay K. Dhir, PhD
Alireza Khademhosseini, PhD
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Vasilios I. Manousiouthakis, PhD
Harold G. Mombouquette, PhD
Stanley J. Osher, PhD
Philippe Sautet, PhD
Yi Tang, PhD (Ralph M. Parsons Foundation Professor of Chemical Engineering)

**Professors Emeriti**

Robert F. Hicks, PhD
Eldon L. Knuth, PhD
James C. Liao, PhD
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Vincent L. Vilker, PhD
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**Associate Professors**

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Yvonne Y. Chen, PhD

**Assistant Professors**

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Carissa N. Eisler, PhD
Yuzhang Li, PhD
Carlos G. Morales-Guijo, PhD
Junyoung O. Park, PhD
Dante A. Simonetti, PhD
Samirnayya Srivastava, PhD

**Scope and Objectives**

The Department of Chemical and Biomolecular Engineering conducts undergraduate and graduate programs of teaching and research that focus on the areas of biomolecular engineering, systems engineering, and advanced materials processing and span the general themes of energy/environment and nanotechnology. Aside from the fundamentals of chemical engineering (thermodynamics, transport phenomena, kinetics, reactor engineering and separations), particular emphasis is given to bolic engineering, protein engineering, synthetic biology, bio-nano-technology, biomaterials, air pollution, environmental modeling, pollution prevention, molecular simulation, process systems engineering, membrane science, semiconductor processing, chemical vapor deposition, plasma processing, and polymer engineering.

Students are trained in the fundamental principles of these fields while acquiring sensitivity to society’s needs—a crucial combination needed to address the challenge of continued industrial growth and innovation in an era of economic, environmental, and energy constraints.

The undergraduate curriculum leads to a BS in Chemical Engineering and includes the standard core curriculum, as well as biomedical engineering, biomolecular engineering, environmental engineering, and semiconductor manufacturing engineering options. The department also offers graduate courses and research leading to MS and PhD degrees. Both graduate and undergraduate programs closely relate teaching and research to important industrial problems.

**Undergraduate Study**

The chemical engineering program is accredited by the Engineering Accreditation Commission of ABET.

The Chemical Engineering major is a designated capstone major. The capstone project requires students to first work individually and learn how to integrate chemical engineering fundamentals taught in prior required courses; they then work in groups to produce a paper design of a realistic chemical process using appropriate software tools. Graduates should be able to design a chemical or biological system, component, or process that meets technical and economical design objectives, as well as sustainable development goals. In addition, they should be able to apply their knowledge of mathematics, physics, chemistry, biology, and chemical and biological engineering to analysis and design of chemical and biochemical processes and products; function on multidisciplinary teams; identify, formulate, and solve complex chemical and biological engineering problems; and communicate effectively, both orally and in writing.

**Chemical Engineering Core Option**

**Preparation for the Major**

Required: Chemical Engineering 10; Chemistry and Biochemistry 20A, 20B, 20L, 30A, 30AL, 30B; Civil and Environmental Engineering M20 or Mechanical and Aerospace Engineering M20; Mathematics 31A, 31B, 32A, 32B, 33A, 33B; Physics 1A, 1B, 1C, 4AL.

**The Major**

Required: Chemical Engineering 45, 100, 101A, 101B, 101C, 102A, 102B, 103, 104A, 104B, 106, 107, 109; three technical breadth courses (12 units) selected from an approved list available in the Office of Academic and Student Affairs; two capstone analysis and design courses (Chemical Engineering 108A, 108B); and two elective courses (8 units) from Chemical Engineering 110, 111, 112, 113, CM114, C115, C116, C118, C119, C121, C125, C128, C135, C140.

For information on UC, school, and general education requirements, see the College and Schools chapter.

**Biomedical Engineering Option**

**Preparation for the Major**

Required: Chemical Engineering 10; Chemistry and Biochemistry 20A, 20B, 20L, 30A, 30AL, 30B; Civil and Environmental Engineering M20 or Mechanical and Aerospace Engineering M20; Mathematics 31A, 31B, 32A, 32B, 33A, 33B; Physics 1A, 1B, 1C, 4AL.

**The Major**

Required: Chemical Engineering 45, 100, 101A, 101B, 101C, 102A, 102B, 103, 104A, 104B, 106, 107, 109, Chemistry and Biochemistry 153A; three technical breadth courses (12 units) selected from an approved list available in the Office of Academic and Student Affairs; two capstone analysis and design courses (Chemical Engineering 108A, 108B); and one biomedical elective course (4 units) from Chemical Engineering C115, C121, C124, C125, CM127, C135, or CM145 (another chemical engineering elective may be substituted with approval of the faculty adviser).

For information on UC, school, and general education requirements, see the College and Schools chapter.
Biomolecular Engineering Option

Preparation for the Major

Required: Chemical Engineering 10; Chemistry and Biochemistry 20A, 20B, 20L, 30A, 30L, 30B, Civil and Environmental Engineering M20 or Mechanical and Aerospace Engineering M20; Mathematics 31A, 31B, 32A, 32B, 33A, 33B; Physics I A, 1 B, 4AL.

The Major

Required: Chemical Engineering 45, 100, 101A, 101B, 101C, 102A, 102B, 103, 104A, 104B, 105, 107, 109, 113, 115, 125, 135A, or 135B (another chemical engineering elective may be substituted with approval of the faculty adviser).

For information on UC, school, and general education requirements, see the College and Schools chapter.

Environmental Engineering Option

Preparation for the Major

Required: Chemical Engineering 10; Chemistry and Biochemistry 20A, 20B, 20L, 30A, 30L, 30B; Civil and Environmental Engineering M20 or Mechanical and Aerospace Engineering M20; Mathematics 31A, 31B, 32A, 32B, 33A, 33B; Physics I A, 1 B, 4AL.

The Major

Required: Chemical Engineering 45, 100, 101A, 101B, 101C, 102A, 102B, 103, 104A, 104B, 105, 107, 109, 113, 115, 125, 135A, or 135B (another chemical engineering elective may be substituted with approval of the faculty adviser).

For information on UC, school, and general education requirements, see the College and Schools chapter.

Semiconductor Manufacturing Engineering Option

Preparation for the Major

Required: Chemical Engineering 10; Chemistry and Biochemistry 20A, 20B, 20L, 30A, 30L, 30B, Civil and Environmental Engineering M20 or Mechanical and Aerospace Engineering M20; Mathematics 31A, 31B, 32A, 32B, 33A, 33B; Physics I A, 1 B, 4AL.

The Major

Required: Chemical Engineering 45, 100, 101A, 101B, 101C, 102A, 102B, 103, 104A, 104C, 104CL, 106, 107, 109, 116; three technical breadth courses (12 units) selected from an approved list available in the Office of Academic and Student Affairs; two capstone analysis and design courses (Chemical Engineering 108A, 108B); and one elective course (4 units) from chemical engineering or from Materials Science and Engineering 104, 120, 121, 122, or 150.

For information on UC, school, and general education requirements, see the College and Schools chapter.

Graduate Study

Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Division website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Graduate Degrees

The Department of Chemical and Biomolecular Engineering offers Master of Science (MS) and Doctor of Philosophy (PhD) degrees in Chemical Engineering.

Chemical Engineering

Lower-Division Courses

2. Technology and Environment. (4) Lecture, four hours; outside study, eight hours. Natural and anthropogenic flows of materials at global and regional scales. Case studies of natural cycles include global warming (CO2), stratospheric ozone depletion (chlorine and ozone cycles), and global nitrogen cycles. Flow of materials in industrial economies compared and contrasted with natural flows; presentation of lifecycle methods for evaluating environmental impact of processes and products. P/NP or letter grading.

10. Introduction to Chemical and Biomolecular Engineering. (1) Lecture, one hour; outside study, two hours. General introduction to field of chemical and biomolecular engineering. Description of how chemical and biomolecular engineering analysis and design skills are applied for creative solution of current technology problems in production of microelectronic devices, design of chemical plants for minimum environmental impact, application of nanotechnology to chemical sensing, and genetic-level design of recombinant microbes for chemical synthesis. Letter grading.

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their area of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

45. Biomolecular Engineering Fundamentals. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Recommended requisites: Chemistry 20A, 20L, 30A, 30L. Intended for those students who have not taken Life Sciences 2, 3, and Chemistry 135A. Fundamentals of modern biomolecular engineering. Topics include structure and function of biomolecules, central dogma of molecular biology, cellular information and energy processing, and experimental methods, with strong emphasis on applications in medicine, industry, and bioenergy. Letter grading.

99. Student Research Program. (1 to 2) Tutorial (supervised research or other scholarly work), three hours per week per unit. Entry-level research for lower-division students under guidance of faculty mentor. Students must be in good academic standing and enrolled in minimum of 12 units (excluding this course). Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP grading.

Upper-Division Courses

100. Fundamentals of Chemical and Biomolecular Engineering. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Enforced requisites: Chemistry course 20B, 20L (not mathematics 32B may be taken concurrently). Physics 1A. Introduction to analysis and design of industrial chemical processes. Material and energy balances. Introduction to programming in MATLAB. Letter grading.


101C. Mass Transfer. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Enforced requisites: course 101B. Introduction to analysis of mass transfer in systems of interest to chemical engineering practice. Fundamentals of mass species transport, Fick law of diffusion, diffusion in chemically reacting flows, interphase mass transfer, multicomponent systems. Letter grading.

102A. Thermodynamics I. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Introduction to thermodynamics of chemical and biological processes. Work, energy, heat, and first law of thermodynamics. Second law, extremum principles, entropy, and free energy. Ideal and real gases, properties and equilibrium. Thermodynamics of flow systems. Applications of first and second laws in biological processes and living organisms. Letter grading.


103. Separation Processes. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Enforced requisites: courses 100, 101B. Application of principles of heat, mass, and momentum transport to design and operation of separation processes such as distillation, gas absorption, filtration, and reverse osmosis. Letter grading.

104A. Chemical and Biomolecular Engineering Laboratory I. (4) Lecture, two hours; laboratory, six hours; outside study, four hours. Enforced requisites: course 100. Enforced corequisite: course 101B. Recommended: course 102B. Investigation of basic transport phenomena in 10 predetermined experiments, collection of data for statistical analysis and individually written technical reports and group presentations. Design and performance of one original experimental study involving transport, separation, or another aspect of chemical and biomolecular engineering. Basic statistics: mean, standard deviation, confidence limits, comparison of two means and of multiple means, one and multiple variable linear regression, and brief introduction to factorial design of experiments. Oral and poster presentations. Technical writing of sections of technical reports and their contents; writing clearly,
109. Numerical and Mathematical Methods in Chemical and Biological Engineering. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Enforced requisite: Civil and Environmental Engineering M20 or Mechanical and Aerospace Engineering M20. Composition of solution of systems of linear and nonlinear algebraic equations, ordinary differential equations, and partial equations. Chemical and biomolecular engineering examples used throughout to illustrate application of these methods. Use of MATLAB as platform (programming environment) to write programs based on numerical methods to solve problems arising in chemical engineering. Letter grading.

110. Intermediate Engineering Thermodynamics. (4) Lecture, four hours; discussion, one hour; outside study, eight hours. Enforced requisite: course 102B. Principles and engineering applications of statistical and phenomenological thermodynamics. Determination of partition function in terms of simple molecular models and spectroscopic data; nonideal gases; phase transitions and adiabatic, non-equilibrium thermodynamics and coupled transport processes. Letter grading.

C111. Cryogenics and Low-Temperature Processes. (4) Lecture, four hours; discussion, one hour; outside study, 102A; 102B (or Materials Science 130). Fundamentals of cryogenics and cryogenic science pertaining to industrial low-temperature processes. Basic approaches and analyses needed for operation of cryogenic systems; low-temperature behavior of matter, optimization of cryosystems and other special conditions. Concurrently scheduled with course C112. Letter grading.

C112. Polymer Processes. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Requisites: course 101A, Chemistry 30A. Formation of polymers, criteria for selecting reaction scheme, polymerization techniques and characterization. Mechanical properties of macromolecules, polymer process engineering. Diffusion in polymeric systems. Polymers in biomedical applications and in microelectronics. Concurrently scheduled with course C212. Letter grading.

113. Air Pollution Engineering. (4) Lecture, four hours; preparation, two hours; outside study, six hours. Enforced requisites: courses 101C, 102B. Integrated approach to air pollution, including concentrations of atmospheric pollutants, air pollution standards, air pollution sources and control technology, and relationships to quality of emission sources. Links air pollution to multimedia environmental assessment. Letter grading.

CM114. Electrochemical Processes. (Formerly numbered C114.) (Same as Materials Science CM163B.) (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Requisites: course 102B, Mechanical and Aerospace Engineering 105A (or Materials Science 130). Fundamentals of electrochemistry and engineering applications to industrial electrochemical processes. Primary emphasis on fundamental approach to analyze electrochemical processes. Specific topics include electrochemical reactions on metal electrodes, surfaces, electrodereaction, electrochemical reactions; fuel cells, aqueous and non-aqueous batteries, solid-state electrochemistry. May be concurrently scheduled with course CM115. Letter grading.

C115. Biochemical Reaction Engineering. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Enforced requisite: course 101C. Use of previously learned concepts of biophysical chemistry, thermodynamics, and reaction kinetics to develop tools needed for technical design and economic analysis of biological reactors. May be concurrently scheduled with course CM215. Letter grading.

C116. Surface and Interface Engineering. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Introduction to surfaces and interfaces of engineering materials, chemisorption, physisorption, and thin films for solid-state electronic devices. Topics include classification of crystals and surfaces, analysis of structure and composition of crystals and their surfaces and interfaces. Examination of engineering applications, including catalytic surfaces, interfaces in microelectronics, and solid-state laser. May be concurrently scheduled with course C216. Letter grading.

C118. Multimedia Environmental Assessment. (4) Lecture, four hours; discussion, one hour; preparation, two hours; outside study, five hours. Recommended requisites: courses 101C, 102B. Pollutant sources, estimation of source releases, waste minimization, transport and fate of chemical pollutants in environment, interaction of transfers of pollutants, multimedia modeling of chemical partitioning in environment, exposure assessment and fundamentals of risk assessment, risk reduction. May be concurrently scheduled with course C218. Letter grading.


C121. Membrane Science and Technology. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Enforced requisites: courses 101A, 102B, 104B, C125. Fundamentals of science and technology, with emphasis on separations at micro, nano, and molecular/angstrom scale with membranes. Relationship between structure/morphology of dense and porous membranes and transport characteristics. Use of nanotechnology for design of selective membranes and models of membrane transport (flux and selectivity). Examples provided from various fields/applications, including biotechnology, microelectronics, chemical processes, sensors, and biomedical devices. Concurrently scheduled with course C221. Letter grading.

C124. Materials Interactions. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Requisites: Life Sciences 2, 3, 23L. Introduction to design and synthesis of biomaterials for regenerative medicine, in vitro cell culture, and drug delivery. Biological principles of cellular microenvironment and design of extracellular matrix analogs using biological and engineering principles. Biomaterials for growth factors, and DNA and siRNA delivery as therapeutics and to facilitate tissue regeneration. Use of stem cells in tissue engineering. Concurrently scheduled with course C224. Letter grading.

C125. Bioseparations and Bioprocess Engineering. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Enforced corequisite: course 101C. Separation strategies, unit operations, and economic factors used to design processes for isolating and purifying materials like whole cells, enzymes, food additives, or pharmaceuticals that are products of biological reactors. Concurrently scheduled with course CM225. Letter grading.

CM127. Synthetic Biology for Biofuels. (4) (Same as Chemistry CM127.) Lecture, four hours; discussion, one hour; outside study, seven hours. Requisite: Chemistry 153A. Engineering microorganisms for complex phenotype is common goal of metabolic engineering and recombinant enzyme catalyzed reactions. Construction of advanced biofuels involves designing and constructing novel metabolic networks in cells. Such efforts require profound understanding of biochemistry, protein structure, and biological regulations and are aided by tools in bioinformatics, systems biology, and molecular biology. Fundamentals of metabolic biochemistry, protein structure and function, and bioinformatics. Use of microorganisms and metabolic networks to design microorganisms for energy applications. Concurrently scheduled with course CM227. Letter grading.

C128. Hydrogen. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Enforced requisite: Chemistry 20A. Electronic, physical, and chemical properties of hydrogen. Various methods of production encompassing production from reformed coal, reforming, electrolysis, and thermochemical cycles. Description in depth of several uses of hydrogen, in-
including hydrogen combustion and hydrogen fuel cells. Concurrently scheduled with course C222. Letter grading.

C135. Advanced Process Control. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Enforced requisites: course 107. Introduction to advanced control systems. Topics include (1) Lyapunov stability for autonomous nonlinear systems including converse theorems, (2) input to state stability, interconnected systems, and small gain theorems, (3) design of dissipative controllers for various classes of nonlinear systems, (4) model predictive control of linear and nonlinear systems, (5) advanced methods for tuning of classical controllers and (6) introduction to control of distributed parameter systems. Concurrently scheduled with course C235. Letter grading.


CM145. Molecular Biotechnology for Engineers. (4) Same as Bioengineering CM145. Lecture, four hours; discussion, one hour; outside study, seven hours. Requisites: course 45. Selected topics in molecular biology that form foundation of biotechnology and biomedical industry today. Topics include recombinant DNA technology, molecular research tools, manipulation of gene expression, directed mutagenesis and protein engineering. DNA-based diagnostics and DNA microarray technologies. Use of microarray technologies in genomics and bioinformatics, isolation of human genes, gene therapy, and tissue engineering. Concurrently scheduled with course CM245. Letter grading.

M153. Introduction to Microscale and Nanoscale Manufacturing Processes. (4) Same as Mechanical Engineering C119, Electrical and Computer Engineering C153, and Mechanical and Aerospace Engineering M183B.) Lecture, three hours; laboratory, four hours; outside study, five hours. Enforced requisites: Chemistry 20A, Physics 1A, 1B, 1C, 4A, 4BL. Introduction to general manufacturing methods, mechanisms, constraints, and microfabrication and nanofabrication. Focus on concepts, methods and equipment to fabricate micro- and nanoscale structures that have been broadly applied in industry and academia, including various photolithography, physical and chemical deposition methods, and physical and chemical etching methods. Hands-on experience for fabricating microstructures and nanostructures in modern microelectronics. Letter grading.

186. Special Courses in Chemical Engineering. (4) Seminar, four hours; outside study, eight hours. Special topics in chemical engineering for undergraduate students taught on experimental or temporary basis, such as those taught by resident and visiting faculty members. May be repeated once for credit with topic or instructor change. Letter grading.

194. Research Group Seminars: Chemical Engineering. (4) Seminar, four hours; outside study, eight hours. Directed research for graduate students who are part of research group. Discussion of research methods and current literature in field. May be repeated for credit. Letter grading.

199. Directed Research in Chemical Engineering. (2 to 8) Tutorial, to be arranged. Limited to juniors/seniors. Supervised individual research or investigation of selected topic under guidance of faculty mentor. Culminates in written report of research. May be repeated for credit with school approval. Individual contract required; enrollment petitions available in Office of Academic and Student Affairs. Letter grading.

Graduate Courses

200. Advanced Engineering Thermodynamics. (4) Lecture, four hours; outside study, eight hours. Prerequisite: course 102B. Phenomenological and statistical thermodynamics of chemical and physical systems with engineering applications. Presentation of role of atomic and molecular spectra and intermolecular forces in interpretation of thermodynamic properties of gases, liquids, solids, and plasmas. Letter grading.

201. Methods of Molecular Simulation. (4) Lecture, four hours; outside study, eight hours. Requisite: course 202 or Chemistry 223A or Physics 215A. Modern simulation techniques for classical molecular systems. Monte Carlo and molecular dynamics in various ensembles. Applications to liquids, solids, and polymers. Letter grading.


211. Cryogenic Engineering and Low-Temperature Processes. (4) Lecture, four hours; outside study, seven hours. Fundamentals of cryogenics and cryoengineering science pertaining to industrial low-temperature processes. Basic approaches to analysis and cryofluidics needed for operation of cryogenic systems; low-temperature behavior of matter, optimization of cryosystems and other special conditions. Concurrently scheduled with course C111. Letter grading.

212. Polymer Processes. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Requisites: course 101A. Chemistry 30A. Formation of polymers, criteria for selecting reaction scheme, polymerization techniques and characterization. Mechanical properties. Rheology of macromolecules. Polymer process engineering. Diffusion in polymeric systems. Applications to biomedical applications and in microelectronics. Concurrently scheduled with course C112. Letter grading.

214. Electrochemical Processes. (4) Formerly numbered C214.) (Same as Materials Science and Engineering M214.) Lecture, four hours; outside study, seven hours. Requisites: course 102B. Mechanical and Aerospace Engineering 105A (or Materials Science 130). Fundamentals of electrochemistry and engineering applications to industrial electrochemical processes. Primary emphasis on fundamental approach to analyze electrochemical processes. Specific topics include electrochemical reactions on metal and semiconductor surfaces, electrolyte, electrodeposition, electroless deposition, electrosynthesis, fuel cells, aqueous and non-aqueous batteries, solid-state electrochemistry. May be concurrently scheduled with course C215. Letter grading.

215. Biochemical Reaction Engineering. (4) (Same as Bioengineering M215.) Lecture, four hours; discussion, one hour; outside study, seven hours. Enforced requisite: course 101C. Use of previously learned concepts of biophysical chemistry, thermodynamics, transport phenomena, and reaction kinetics to develop tools needed for technical design and economic analysis of biological reactors. May be concurrently scheduled with course C215. Letter grading.

216. Surface and Interface Engineering. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Introduction to surfaces and interfaces of engineering importance. Surface and thin films for solid-state electronic devices. Topics include classification of crystals and surfaces, analysis of structure and composition of crystals and their surfaces to industrial electrochemistry, thin film engineering applications, including catalytic surfaces, interfaces in microelectronics, and solid-state laser. May be concurrently scheduled with course C216. Letter grading.

217. Electrochemical Engineering. (4) Lecture, four hours; outside study, eight hours. Requisites: course 214. Transport phenomena in electrochemical systems; relationships between molecular transport, convection, and electrode kinetics, along with applications to industrial electrochemistry, fuel cell design, and modern battery technology. Letter grading.


220. Advanced Mass Transfer. (4) Lecture, four hours; outside study, eight hours. Requisite: course 101C. Advanced treatment of mass transfer, with applications to industrial separation processes, gas cleaning, pulmonary bioengineering, controlled release systems, and reactor design; molecular and constitutive theories of diffusion, interfacial transport, membrane transport, convective mass transfer, concentration boundary layers, turbulent transport. Letter grading.

221. Membrane Science and Technology. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Enforced required: courses 101A, 101C. Fundamentals of membrane science and technology, with emphasis on separations at micro, nano, and molecular/angstrom scale. Relationship between structure/ morphology of dense and porous membranes and their separation characteristics. Use of nanotechnology for design of selective membranes and models of membrane transport (flux and selectivity). Examples provided from various fields/applications, including biotechnology, microelectronics, chemical processes, sensors, and biomedical devices. Concurrently scheduled with course C211. Letter grading.


223. Design for Environment. (4) Lecture, four hours; outside study, eight hours. Limited to graduate chemical engineering, materials science and engineering, or Master of Engineering program students. Design of chemical engineering systems for meeting environmental objectives; lifecycle inventories; lifecycle impact assessment; design for energy efficiency; design for waste minimization, computer-aided design tools, materials selection methods. Letter grading.

224. Cell Material Interactions. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Requisites: Life Sciences 2, 3, 23L. Introduction to the design and synthesis of materials for regenerative medicine, in vitro cell culture, and drug delivery. Biological principles of cellular microenvironment and design of extracellular matrix analogs using biological and engineering principles. Bioactive molecules, growth factor, and DNA and siRNA delivery as therapeutics and to facilitate tissue regeneration. Use of stem cells in tissue engineering. Concurrently scheduled with course C124. Letter grading.
CM225. Bioseparations and Bioprocess Engineering. (4) (Same as Bioengineering M225.) Lecture, four hours; discussion, one hour; outside study, seven hours. Enforced corequisite: course 101C. Separation strategies, unit operations, and economic factors used to design processes for isolating and purifying macromolecules or molecules like whole cells, enzymes, food additives, or pharmaceuticals that are products of biological reactors. Concurrently scheduled with course C125. Letter grading.

CM227. Synthetic Biology for Biofuels. (4) (Same as Chemistry CM227.) Lecture, four hours; discussion, one hour; outside study, seven hours. Requisite: Chemistry 20A. Electronic, physical, and chemical properties of biofuels. Various mechanisms of fuel combustion, including production through methane steam reforming, electrification, and thermochemical cycles. Description in depth of several uses of hydrogen, including hydrogen combustion and hydrogen fuel cells. Use of systems modeling for metabolic networks to design microorganisms for energy applications. Concurrently scheduled with course CM127. S/U or letter grading.

C228. Hydrogen. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Enforced requisite: course 201C. Topics include (1) Lypunov stability for autonomous nonlinear systems including converse theorems, (2) input to state stability of interconnected systems, and small gain theorems, (3) design of nonlinear and robust controllers for various classes of nonlinear systems, (4) model predictive control of linear systems, (5) advanced methods for tuning of classical controllers, and (6) introduction to control of distributed parameter systems. Concurrently scheduled with course C135. Letter grading.

236. Chemical Vapor Deposition. (4) Lecture, four hours; outside study, eight hours. Requisites: courses 210, 212. Chemical vapor deposition is widely used to deposit thin films that comprise microelectronic devices. Topics include reactor design, transport phenomena, gas and surface chemical kinetics, structure and composition of deposited films, and relationship between process conditions and film properties. Letter grading.

C240. Fundamentals of Aerosol Technology. (4) Lecture, four hours; outside study, eight hours. Enforced requisite: course 101C. Topics include (1) Lypunov stability for autonomous nonlinear systems including converse theorems, (2) input to state stability of interconnected systems, and small gain theorems, (3) design of nonlinear and robust controllers for various classes of nonlinear systems, (4) model predictive control of linear systems, (5) advanced methods for tuning of classical controllers, and (6) introduction to control of distributed parameter systems. Concurrently scheduled with course C140. Letter grading.

CM245. Molecular Biotechnology for Engineers. (4) (Same as Bioengineering CM245.) Lecture, four hours; discussion, one hour; outside study, seven hours. Topics include recombinant DNA technology, molecular research tools, manipulation of gene expression, genetic engineering and synthetic biology. Production of ad-hoc enzymes, development of biocompatible materials. Letter grading.


239. Molecular Dynamics. (4) Lecture, four hours; outside study, eight hours. Requisite: course 106 or 110. Analysis and design of molecular-beam systems. Molecular-beam sampling of reactive mixtures in combustion processes. Molecular-beam studies of gas-surface interactions, including energy accommodation and heterogeneous reactions. Applications to air pollution control and to catalysis. Letter grading.


233. Frontiers in Biotechnology. (2) Lecture, one hour. Requisite: Life Sciences 3. Integration of science and biology. Academic research leading to licensing and funding of companies that turn research breakthroughs into marketable products. Invited lecturers from academia and industry cover emerging areas of biotechnology from combination of science, engineering, and business points of view. S/U or letter grading.


235. Advanced Process Control. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Enforced requisite: course 107. Introduction to advanced process control. Topics include (1) Lypunov stability for autonomous nonlinear systems including converse theorems, (2) input to state stability of interconnected systems, and small gain theorems, (3) design of nonlinear and robust controllers for various classes of nonlinear systems, (4) model predictive control of linear systems, (5) advanced methods for tuning of classical controllers, and (6) introduction to control of distributed parameter systems. Concurrently scheduled with course C135. Letter grading.

270. Principles of Reaction and Transport Phenomena. (4) Lecture, four hours; laboratory, eight hours. Fundamentals in transport phenomena, chemical reaction kinetics, and thermodynamics at molecular level. Topics include Boltzmann equation, microscopic chemical kinetics, transition state theory, and statistical analysis. Examination of engineering applications related to state-of-the-art research areas in chemical engineering. Letter grading.

281. Advanced Research in Semiconductor Manufacturing. (8) Laboratory, nine hours; outside study, nine hours. Limited to graduate chemical engineering students in MS semiconductor manufacturing option. Supervised research using semiconductor materials and devices. Letter grading.

M280A. Linear Dynamic Systems. (4) (Same as Electrical and Computer Engineering M240A and Mechanical and Aerospace Engineering M270A.) Lecture, four hours; outside study, eight hours. Requisites: Electrical and Computer Engineering 240B or Mechanical and Aerospace Engineering 270A. State-space description of linear time-invariant (LTI) and time-varying (LTV) systems in continuous and discrete time. Linear algebra concepts such as eigenvalues and eigenvectors, singular values, Cayley/Hamilton theorem, Jordan form; solution of state equations; stability, controllability, observability, detectability. Stabilization design via state feedback and observers; separation principle. Connections with transfer function techniques. Letter grading.

M280C. Optimal Control. (4) (Same as Electrical and Computer Engineering M240C and Mechanical and Aerospace Engineering M270C.) Lecture, four hours; outside study, eight hours. Requisites: Electrical and Computer Engineering 240B or Mechanical and Aerospace Engineering 270A. State-space techniques for studying solutions of time-invariant and time-varying nonlinear dynamic systems with emphasis on stability, Lypunov theory (including converse theorems), invariance, center manifold theorem, input-to-state stability and small-gain property. Letter grading.

283C. Analysis and Control of Infinite Dimensional Systems. (4) Lecture, four hours; outside study, eight hours. Requisites: courses M280A, M282A. Designed for graduate students. Introduction to advanced dynamical analysis and controller synthesis methods for nonlinear infinite dimensional systems. Topics include (1) linear operator and stability theory (basic results on Banach and Hilbert spaces, semigroup theory, convergence theory in function spaces), (2) nonlinear model reduction (linear and nonlinear Galerkin method, proper orthogonal decomposition), (3) nonlinear and robust control of nonlinear hyperbolic and parabolic partial differential equations (PDEs), (4) applications to transport-reaction processes. Letter grading.


290. Special Topics. (2 to 4) Seminar, four hours. Requisites for each offering announced in advance by department. Advancement of one of more aspects of chemical engineering, such as chemical process dynamics and control, fuel cells and batteries, membrane transport, advanced chemical engineering analysis. Letter grading. May be repeated for credit with topic change. Letter grading.
CHEMISTRY AND BIOCHEMISTRY

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Scope and Objectives

Chemistry is concerned with the composition, structure, and properties of substances, the transformations of these substances into others by reactions, and the kinds of energy changes that accompany these reactions. The Department of Chemistry and Biochemistry is organized in four interrelated and overlapping subdisciplines that deal primarily with the chemistry of inorganic substances (inorganic chemistry), the chemistry of carbon compounds (organic chemistry), the chemistry of living systems (biochemistry), and the physical behavior of substances in relation to their structures and chemical properties (physical chemistry). The
Chemistry/Materials Science major is designed for students who are interested in the applications of chemistry for the design, synthesis, and study of new materials.

Undergraduate Study
The department offers four majors: Chemistry (with concentrations in chemistry and physical chemistry), Biochemistry, General Chemistry, and Chemistry/Materials Science. The Chemistry and Biochemistry majors are designed to prepare students for graduate studies in each field, for entry into professional schools in the health sciences, and for careers in industries and businesses that depend on chemically and biochemically based technology. The General Chemistry major is intended for students who wish to acquire considerable chemical background in preparation for careers outside chemistry. The Chemistry/Materials Science major provides appropriate preparation for graduate studies in fields that emphasize research involving chemistry, engineering, and applied science. Each course used to fulfill any of the requirements for any of the departmental majors must be taken for a letter grade. Seminar courses, individual study courses, and research courses (e.g., 194, 199) may not be applied toward the requirements for the majors.

Requirements for the majors are outlined below. For additional information, contact the Undergraduate Office in 4006 Young Hall.

Admission
Students entering UCLA directly from high school who declare a Chemistry, Biochemistry, or Chemistry/Materials Science major at the time of application are automatically admitted to that major.

UCLA students who wish to enter one of the majors must have a minimum grade of C– in each of the preparation for the major courses completed and a combined grade-point average of at least 2.0 in those courses. Grades in any completed courses for the major must also average at least 2.0.

Transfer Students
Transfer applicants to the departmental majors with 90 or more units must complete the following introductory courses prior to admission to UCLA: one year of general chemistry with laboratory for majors, one and one half years of calculus, and either one year of calculus-based physics with laboratory or one year of organic chemistry for majors. Biochemistry majors must also complete courses equivalent to Life Sciences 2, 3, and 4 OR 7A, 7B, and 7C; Chemistry majors should have completed the equivalent of Mathematics 32B; Chemistry/Materials Science majors in the organic materials concentration must complete a full year of organic chemistry with laboratory in addition to the other courses listed above.

Entering transfer students who have successfully completed a year course (including laboratory) in general college chemistry intended for science and engineering students should enter course 30A. Transfer students should contact the Undergraduate Office in 4006 Young Hall for assistance with the articulation of transfer coursework.

Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

Advanced Placement in Chemistry
Students who have taken the Advanced Placement (AP) Chemistry Examination and obtained a score of 4 or 5 receive 8 units of credit on credit and may petition for chemistry and biochemistry equivalency, or may take course 20A at UCLA. If students received a score of 3 on the AP Chemistry Examination, they receive 8 units of chemistry credit but no course equivalency.

Credit Limitations
Students may not take or repeat a chemistry or biochemistry course for credit if it is a requisite for a more advanced course for which they already have credit. This applies in particular to the repetition of courses (e.g., if students wish to repeat Chemistry and Biochemistry 20A, they must do so before completing course 20B).

Chemistry BS
The Chemistry major is for students who intend to pursue a career in chemistry.

Learning Outcomes
The Chemistry major has the following learning outcomes:

• Demonstrated broad mastery of fundamental chemical knowledge, in-depth problem solving, critical thinking, and analytical reasoning in analytical, inorganic, organic, and physical chemistry, and in research
• Use of computers in data acquisition and processing
• Use of software tools for exploration and investigation of chemistry principles and models
• Understanding of the role of chemistry in addressing contemporary societal and global issues
• Performance of basic laboratory techniques, description of working principles, and knowledge of how to operate modern chemical instrumentation
• Use of chemical information to search chemical safety databases
• Conduct experimental work and handle all chemicals in a safe manner following OSHA-approved regulations and procedures
• Work effectively in groups and teams of diverse peers to solve scientific problems
• Search and access current and prior research
• Communication of chemical knowledge and experimental results through written reports and oral presentations

Chemistry Concentration
Preparation for the Major
Required: Chemistry and Biochemistry 20A (or 20AH), 20B (or 20BH), 20L, 30A, 30AL, 30B, 30BL, 30C, 30CL; Mathematics 31A, 31B, 32A, 32B, 33A (33B highly recommended); Physics 1A, 1B, and 1C (or 1AH, 1BH, and 1CH), 4BL.

The Major
Required: Chemistry and Biochemistry 110A, either 110B or 113B, 113A, 114 (or 114H), either 136 or 144, 153A, 153L, 171, 172, and two other upper-division or graduate courses in the department, including at least one additional laboratory course from 136, 144, 154, C174, 184, 185.

Physical Chemistry Concentration
The physical chemistry concentration is designed primarily for students who are interested in attending graduate school in physical chemistry/physics or related areas.

Preparation for the Major
Required: Chemistry and Biochemistry 20A (or 20AH), 20B (or 20BH), 20L, 30A, 30AL, 30B, 30BL; Mathematics 31A, 31B, 32A, 32B, 33A, 33B; Physics 1A, 1B, and 1C (or 1AH, 1BH, and 1CH), 4BL.

The Major
Required: Chemistry and Biochemistry 110A, 110B, 113A, 113B, 114 (or 114H), 153A, 153L, 171, 172; one additional upper-division chemistry, electrical engineering, or physics laboratory course; and three elective upper-division or graduate courses approved by the physical chemistry adviser. Refer to the Undergraduate Office website for a list of approved electives.

By the junior year, students are strongly encouraged to join a research group within the physical chemistry division to obtain firsthand experience with state-of-the-art physical chemistry research.

Biochemistry BS
The Biochemistry major is for students preparing for careers in biochemistry or other fields requiring extensive preparation in both chemistry and biology.

Learning Outcomes
The Biochemistry major has the following learning outcomes:

• Understanding of chemical structures, bonding, and conformational properties of biological molecules
• Understanding of higher-level organization of cellular components, rules of subcellular organelles, and compartmentalization
• Understanding of mechanisms and energetics of biochemical reactions and the basis for enzymatic catalysis, including the roles of organic co-factors and metals in such processes
• Understanding of ways that cellular events are energetically coupled in key processes
• Understanding of regulatory and response mechanisms that operate in biological systems to achieve homeostasis and conduct signaling within and between cells
• Understanding of the basis for molecular evolution and ways that genetic information is encoded and transmitted in biology
• Understanding of the roles of DNA and protein sequence information in inferring biological function and common ancestry
• Familiarity with laboratory methods for purifying, identifying, and characterizing biomolecules, including protein and nucleic acids
• Familiarity with assays for activity and binding
• Familiarity with basic laboratory methods for DNA manipulation
• Understanding of the roles of hypotheses and models in investigating scientific ideas
• Understanding of the critical importance of controls in interpreting experimental data

**Preparation for the Major**

**Required:** Chemistry and Biochemistry 14A (or 14AE) and 14B (or 14AE), or 20A (or 20AH) and 20B (or 20BH), 20L, 30A, 30AL, 30B, 30BL, 30C, 30CL; Life Sciences 7A; Mathematics 31A, 31B, 32A, 32A, 32A; Physics 1A, 1B, and 1C (or 1AH, 1BH, and 1CH), and 4BL (or SA, SB, and SC).

Students must also complete one of two life sciences sequences—either Life Sciences 2, 3, 4, and 23L, or 7A, 7B, 7C, and 23L. They may not substitute courses in either sequence.

**The Major**

**Required:** Chemistry and Biochemistry 110A, 135A, 153B, 153C, 153L, 154, 156; one additional upper-division or graduate course in chemistry and biochemistry; and three elective upper-division or graduate courses (12 units) approved by the undergraduate adviser (Microbiology, Immunology, and Molecular Genetics 101 highly recommended). Refer to the Undergraduate Office website for a list of approved electives.

**General Chemistry BS**

The General Chemistry major is for students who wish to acquire considerable chemical background in preparation for careers in secondary school chemistry teaching. The major may be appropriate for some students who plan to enter other chemistry-related careers that involve teaching chemistry to nonchemists. This major cannot be taken as part of a double major or with the Science Education minor. Students must declare the major before reaching 135 units.

**Learning Outcomes**

The General Chemistry major has the following learning outcomes:

• Demonstrated mastery of fundamental chemical knowledge in analytical, inorganic, organic, physical chemistry, and biochemistry through in-depth problem solving, critical thinking, and analytical reasoning
• Effective communication of chemical knowledge through written materials, oral presentations, and teaching in a variety of settings
• Use of information resources for exploration and investigation of chemistry principles and models
• Understanding of the role of chemistry in addressing contemporary societal and global issues
• Ability to perform and teach basic laboratory procedures and techniques involving the synthesis of molecules
• Ability to perform and teach the measurement of chemical properties, structures, and phenomena
• Knowledge of how to handle chemicals in a safe manner following OSHA-approved regulations and procedures
• Knowledge of how to use information resources to search and access safety databases

**Preparation for the Major**

Required: Chemistry and Biochemistry 20A (or 20AH), 20B (or 20BH), 20L, 30A, 30AL, 30B, 30BL, 30C, 30CL; Life Sciences 7A; Mathematics 31A, 31B, 32A, 32A, 32A; Physics 1A, 1B, and 1C (or 1AH, 1BH, and 1CH), and 4BL (or SA, SB, and SC).

Students must complete the preparation courses with at least a 2.0 grade-point average.

**The Major**

Required: Chemistry and Biochemistry 110A, 135A, 153L, 171, and 192A or 192B; three additional upper-division courses in the department (at least one must be a laboratory course); one course from Atmospheric and Oceanic Sciences 101, 102, 103, 104, Earth, Planetary, and Space Sciences 101, 113; three courses from Education M102, M108, C125, C127, C129, 130, 132, 133, 164, 166, M194A; one course from Environmental Health Sciences C152D, C164, Science Education 100SL. A 2.0 grade-point average is required in all upper-division courses in the department.

**Chemistry/Materials Science BS**

The Chemistry/Materials Science major is designed for students who are interested in chemistry with an emphasis on materials property and provides students the opportunity to gain expertise in both chemistry and the science and engineering in materials such as semiconductors, photonic materials, polymers, biomaterials, ceramics, and nano-scale structures. Students explore the reactivity of such materials in different environments and gain understanding of how chemical compositions affect properties. The major provides appropriate preparation for graduate studies in many fields emphasizing interdisciplinary research, including chemistry, engineering, and applied science.

**Learning Outcomes**

The Chemistry/Materials Science major has the following learning outcomes:

• Understanding of the foundations of materials chemistry including nanoscience, materials synthesis, and materials processing
• Understanding of different methods for materials characterization, measurement of materials properties, and general structure/function relationships
• Familiarity with laboratory methods for materials chemistry and practical laboratory experience with such methods, including X-ray diffraction, optical absorption and fluorescence spectroscopies, electrical measurements, and electron and scanning probe microscopies
• Understanding of basic operational principles for a broad range of practical devices (e.g., LEDs, photovoltaics, electrochemistry, etc.) from a fundamental materials perspective
• Safely and effectively work in a materials laboratory setting
• Knowledge of how to handle chemicals in a safe manner following OSHA-approved regulations and procedures
• Knowledge of how to use information resources to search and access safety databases
• Use of computers, including data acquisition and software tools for calculating and understanding materials properties
• Demonstrated broad mastery of materials chemistry including critical thinking, problem solving, working effectively in diverse groups
• Communication of knowledge through written reports and oral presentations

**Preparation for the Major**

Required: Chemistry and Biochemistry 20A (or 20AH), 20B (or 20BH), 20L, 30A, 30AL, Mathematics 31A, 31B, 32A, 32B, 32A (32B highly recommended), Physics 1A, 1B, 4BL.

**The Major**

Required: Chemistry and Biochemistry 110A, 113A, 171, 172 or C180 or C181, 185, 4 units from 110B, C113B, 172, C174, C175, C176, C180, C181, Materials Science and Engineering 104, 110, 110L, 120, 121 or 150 or 160, 131, 8 units from C111, 121, 122, 132, 150, 160, 162, CM180; 7 laboratory units from Chemistry and Biochemistry 114, 184, Materials Science and Engineering 121L, 131L, 161L.

The following courses may be applied only once toward the major: Chemistry and Biochemistry 172, C180, C181, Materials Science and Engineering 121, 150, 160.

**Organic Materials Concentration**

**Preparation for the Major**

Required: Chemistry and Biochemistry 20A (or 20AH), 20B (or 20BH), 20L, 30A, 30AL, 30B, 30BL, 30C, 30CL, Mathematics 31A, 31B, 32A, 32B, 33B, Physics 1A, 1B, 4BL.

**The Major**

Required: Chemistry and Biochemistry 110A, 113A, 136, 171, 185, 4 units from 110B, C113B, C143A, 144, 172, C174, C175, C176, C180, C181; Materials Science and Engineering 104, 110, 110L, 120, 150, 4 units from C111, 121, 122, 131, 132, 160, 162, CM180; 7 laboratory units from Chemistry and Biochemistry 114, 184, Materials Science and Engineering 121L, 131L, 161L.
Honors Program

Admission

The honors program provides exceptional Chemistry and Biochemistry Department majors with the opportunity to do research culminating in an honors thesis. Junior and senior majors who have completed all university-level coursework, including all preparation courses and requirements for the major, with an overall grade-point average of 3.0 or better and a 3.5 GPA or better in the required major courses, may apply for admission. Students must have the sponsorship of an approved faculty adviser.

For additional information and application forms, students should contact the Undergraduate Advising Office, 4006 Young Hall, early in their educational planning. Completed applications must be submitted at least two weeks prior to the term in which students plan to begin the honors program.

Requirements

The core of the program consists of at least one approved undergraduate seminar course from Chemistry and Biochemistry 193A or 193B and three research courses (12 units minimum) from 196A, 196B, or 199, culminating in a thesis.

To qualify for graduation with departmental honors, students must satisfactorily complete all requirements for the honors program and the major and obtain a cumulative grade-point average of 3.5 or better in coursework required for the major. On recommendation of the faculty sponsor, and with the approval of the thesis by the departmental honors committee, students are awarded no honors, honors, or highest honors.

Students who have a grade-point average of 3.6 or better, both overall and in the major, and demonstrated exceptional accomplishment on the research thesis are awarded highest honors at the discretion of the departmental honors committee.

Computing Specialization

 Majors in Chemistry and Biochemistry may select a specialization in Computing by (1) satisfying all the requirements for a bachelor’s degree in the specified major, (2) completing Program in Computing 10A, 10B, and one course from 10C, 15, 20A, 30, or 60, and (3) completing two computational chemistry courses from Chemistry and Biochemistry C126A, C145, CM160A. Courses need to be completed with a combined grade-point average of at least 2.0. Students must petition for admission to the program and are advised to do so after they complete Program in Computing 10B (petitions should be filed in the Undergraduate Office). Students graduate with a bachelor’s degree in their major and a specialization in Computing.

Graduate Study

Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Division website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Graduate Degrees

The Department of Chemistry and Biochemistry offers Master of Science (MS), Candidate in Philosophy (PhC), and Doctor of Philosophy (PhD) degrees in Chemistry and Master of Science (MS), Candidate in Philosophy (PhC), and Doctor of Philosophy (PhD) degrees in Biochemistry, Molecular and Structural Biology.

Chemistry and Biochemistry

Lower-Division Courses

3. Material World. (4) Lecture, three hours; discussion, one hour. Focus on most important advances made by humans in developing new molecules and materials, and how these discoveries affect our everyday life. These include development of paints, plastics, metals, fuels, drugs, energetic materials, radioactive substances, poisons, vaccines, and many more. Connections between interplay of science, history, arts, and socioeconomic factors driving technological development. Discussion emphasizes projected future of these emerging technologies. P/NP or letter grading.

4A. Chemistry and Your Health. (2) Lecture, two hours. Recent health trends and how they are portrayed in pop culture and media. Examination of scientific explanations behind current health crazes and determination if there is validity to these claims. Discussion of chemical principles, such as basic arrow pushing mechanisms, radical oxidations, etc. Investigation of variety of topics including vitamins, health and beauty supplements, sugar alternatives, detergent/cleansers, and traditional medicines. Relevant for students who have taken organic chemistry classes and those who are interested in learning basic organic chemistry concepts. No college-level chemistry is required. P/NP or letter grading.

4B. What’s Cooking Chemistry in the Kitchen. (4) Lecture, three hours; discussion, one hour. What is difference between baking and cooking? What do some common recipes call for buttermilk, margarine, or shortening? Answers to these questions and more through dive into chemistry happening every day in your kitchen. Study of macromolecules (polymers, carbohydrates, proteins, lipids), their chemical properties (hydrophilic/ hydrophobicity, pH, melting point, degree of saturation), and how to use these properties to control texture and taste in food. Chemical concepts are learned in fun, intuitive way, while use of scientific method in improving food preparations is also learned. Opportunities to participate in scientific process through weekly at home experiments in kitchen, and creative research project. P/NP or letter grading.

7. Nanoscience and Nanotechnology Laboratory. (2) Seminar, discussion, and laboratory, three hours. Limited to high school students. Key concepts of nanoscience and nanotechnology, including various approaches to nanofabrication (bottom-up and top-down). Fabrication of nanostructures and devices, collection of scientific data using those devices, analysis of data, and presentation of student results. Offered in summer only. P/NP grading.

8. Applications of Nanoscience. (2 to 4) Seminar, discussion, laboratory, and field trip, 30 to 60 hours. Limited to high school students. Introduction of advanced concepts of nanoscience and nanotechnology, with emphasis on applications of nanoscience and nanotechnology in other research fields and industries. Laboratories introduce students to research methods, experiment development, scientific writing, and presentation skills. Students devise and execute their own exploratory nanoscience experiments, and present them to technical audience. Offered only as part of Summer Institute. P/NP grading.

14A. General Chemistry for Life Scientists I. (4) Lecture, three hours; discussion, one hour. Preparation for high school chemistry or equivalent background and three and one half years of high school mathematics. Requisite: completion of Chemistry Diagnostic Test. Enforced corequisite: Life Sciences 30A or Mathematics 3A or 31A or score of 48 or better on Mathematics Diagnostic Test. Not open to students with credit for course 20A. Introduction to physical and general chemistry principles; atomic structure based on quantum mechanics; atomic properties; trends in periodic table; chemical bonding (Lewis structures, VSEPR theory, hybridization, and molecular orbital theory); coordination compounds; properties of inorganic and organic acids, bases, buffers. P/NP or letter grading.

14AE. General Chemistry for Life Scientists I—Enhanced. (4) Lecture, three hours; discussion, two hours. Preparation: high school chemistry or equivalent background and three and one half years of high school mathematics. Enforced corequisite: Life Sciences 30A or Mathematics 3A or 31A or score of 48 or better on Mathematics Diagnostic Test. Not open to students with credit for course 20A. Introduction to physical and general chemistry principles; atomic structure based on quantum mechanics; atomic properties; trends in periodic table; chemical bonding (Lewis structures, VSEPR theory, hybridization, and molecular orbital theory); coordination compounds; properties of inorganic and organic acids, bases, buffers. P/NP or letter grading.

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14B. General Chemistry for Life Scientists II. (4) Lecture, three hours; discussion, one hour. Enforced corequisite: course 14A or 20A with grade of C– or better. Enforced corequisite or corequisite: Life Sciences 30B or Mathematics 3B or 31B with grade of C– or better. Not open to students with credit for course 20B or 30A. Enforced corequisite: course 14A or 20A with grade of C– or better. Not open to students with credit for course 14B, 20B, or 30A. Introduction of concepts in physical chemistry that are critical for understanding of molecular basis of life. Includes concepts in thermodynamics, which are required to predict what chemical reactions occur spontaneously, and concepts in kinetics, which are required to predict reaction rate. P/NP or letter grading.

14BL. General and Organic Chemistry Laboratory I. (3) Lecture, one hour; laboratory, three hours. Enforced corequisite: course 14A or 20A or 20AH with grade of C– or better. Enforced corequisite: course 14B. Not open to students with credit for course 20L. Introduction to volumetric, spectrophotometric, and potentiometric analysis. Use and preparation of buffers and pH meters. Synthesis and kinetics techniques using compounds of interest to students in life sciences. P/NP or letter grading.

14C. Structure of Organic Molecules. (4) Lecture, three hours; discussion, one hour. Enforced corequisite: course 14B with grade of C– or better. Not open to students with credit for course 30A. Continuing studies in structure of organic molecules, with emphasis on biological applications. Resonance, stereochemistry, conjugation, and aromaticity; spectroscopy (NMR, IR, and mass spectrometry); introduction to effects of structure on physical and chemical properties; survey of biomolecular structure. P/NP or letter grading.
14CL. General and Organic Chemistry Laboratory II. (4) Lecture, one hour; laboratory, six hours. Enforced requisites: courses 14B and 14BL, or 20B and 202L, with grades of C– or better. Enforced corequisite: course 14C. Synthesis and analysis of compounds; purification by extraction, chromatography, recrystallization, and sublimation; characterization by mass spectrometry, UV, NMR, and IR spectroscopy, optical activity, electrochemistry, pH titration. P/NP or letter grading.

14D. Organic Reactions and Pharmaceuticals. (4) Lecture, three hours; discussion, one hour. Enforced requisite: course 14C with grade of C– or better. Organic and medicinal chemistry, mechanisms and synthetic applications. P/NP or letter grading.

17. Chemical Principles. (4) Lecture, three hours, discussion, one hour. Introduction to chemical principles: numbers, measurements, chemical calculations, gas laws, solutions, acids, bases, and salts, molecular structure, and nomenclature. Collaborative learning and problem solving; introduction to chemistry laboratory practice. P/NP or letter grading.

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

20A. Chemical Structure. (4) Lecture, three hours; discussion, one hour. Preparation: high school chemistry or equivalent and chemistry 3A or equivalent, physical science course or equivalent, high school mathematics. Recommended preparation: high school physics. Requisite: completion of Chemistry Diagnostic Test. Enforced corequisite: Mathematics 31A. Not open to students with credit for course 14A. First term of general chemistry. Survey of chemical processes, quantum chemistry, atomic and molecular structure and bonding, molecular spectroscopy, and nuclear chemistry. P/NP or letter grading.

20AH. Chemical Structure (Honors). (4) Lecture, three hours; discussion, one hour. Preparation: high school chemistry or equivalent background, high school physics, and three and one half years of high school mathematics. Enforced corequisite: Mathematics 31A. Not open to students with credit for course 14A. First term of general chemistry. Survey of chemical processes, quantum chemistry, atomic and molecular structure and bonding, molecular spectroscopy, and nuclear chemistry. P/NP or letter grading.

20BH. Chemical Energies and Change. (4) Lecture, three hours; discussion, one hour. Preparation: high school chemistry or equivalent background, high school physics, and three and one half years of high school mathematics. Enforced corequisite: Mathematics 31A. Not open to students with credit for course 14A. First term of general chemistry. Survey of chemical processes, quantum chemistry, atomic and molecular structure and bonding, molecular spectroscopy, and nuclear chemistry. P/NP or letter grading.


30BL. Organic Chemistry Laboratory I. (3) Lecture, one hour; laboratory, four hours. Requisites: courses 30A (or 30AH), 30AL and 30B, with grades of C– or better. Basic experimental techniques in organic synthesis (performing reactions, monitoring reactions, and conducting purifications) and spectroscopy (IR, NMR, mass spectrometry). Synthesis of known organic molecules on microscale level with focus on societal applications. P/NP or letter grading.


51. Machine Learning for Chemistry. (4) Lecture, three hours. Introduction to machine learning and its many applications within chemical sciences. Topics include: wishful thinking frameworks for modeling large and complex data sets, including neural networks and deep learning, supervised and unsupervised learning, and dimensionality reduction. Exploration of mainstream applications of machine learning to problems of chemical interest, including molecular simulation and computer-aided drug and material design/discovery. Scratch introduction to linear algebra and programming in Python. Enforced prerequisites covered and projects to be completed may be decided in part based on student interest and input. P/NP or letter grading.

88A. Serendipity in Science. (2) Seminar, two hours. Limited to 20 freshmen. Inquiry into unexpected discoveries in science that have had significant impact on society and analysis of circumstances that brought about these discoveries. May be repeated for credit. Offered by Janssen in 1868 (using newly developed field of spectroscopy). Report of X rays by Röntgen in 1895 and of radioactivity by Becquerel in 1896. Other topics include discoveries important to medicine, such as penicillin by Fleming in 1928 and the concept by Rosenberg in 1969. P/NP or letter grading.

89. Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to lower-division lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

98HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to lower-division lecture course. Individual study to supplement lecture, to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

96. Special Courses in Chemistry. (1 to 4) Tutorial, may be arranged. For credit to be maximum for 8 units. P/NP or letter grading.

96A. PEERS Collaborative Learning Workshops for Life Sciences Majors. (1) Laboratory, three hours. Corequisite: associated undergraduate lecture course in chemistry and biochemistry for physical sciences and engineering majors. Limited to Program for Excellence in Education and Research in Science (PEERS) students. Development of interpersonal and problem-solving skills in collaborative learning environment. May be repeated four times, but only 1 unit may be applied toward graduation. P/NP grading.

96X. PEERS Collaborative Learning Workshops for Physical Sciences and Engineering Majors. (1) Laboratory, three hours. Corequisite: associated undergraduate lecture course in chemistry and biochemistry for physical sciences and engineering majors. Limited to Program for Excellence in Education and Research in Science (PEERS) students. Development of interpersonal and problem-solving skills in collaborative learning environment. May be repeated four times, but only 1 unit may be applied toward graduation. P/NP grading.

99. Student Research Program. (1 to 2) Tutorial (supervised research or other scholarly work), three hours per week per unit. Entry-level research for lower-division students under guidance of faculty mentor. Students must be in good academic standing and enrolled in at least 12 units, of which this course counts towards the 12 units. Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP grading.

Upper-Division Courses

C100. Genomics and Computational Biology. (5) Lecture, four hours; discussion, one hour. Introduction for biochemistry students of students and experimental data of genomics, as well as computational tools for analyzing them. Biochemistry and molecular biology dissected life into its component parts, one gene at a time, but lacked integrative mechanisms for putting this information back together to predict what happens in complete organism (e.g., over 80 percent of drug candidates fail in clinical trials). High-throughput technologies—microarrays, mass-spectrometry, and robotics have given biologists incredible new capabilities to analyze complete genomes, expression patterns, functions, and interactions across entire organisms, populations, and species. Use and analysis of such datasets becomes essential daily activity for biomedical scientists. Core principles and methodologies for analyzing genomics data to answer biological and medical questions, with focus on concepts that guide data analysis rather than algorithm details. Concurrently scheduled with course C202. P/NP or letter grading.

Catalysis in Modern Drug Discovery. (4) Lecture, three hours. Enforced requisite: course 14D or 30B with a grade of C– or better. Overview of drug discovery process with focus on transition metal catalysis (including organometallic complexes). Focus on which drugs are discovered, from lead development to process development. Introduction to transition metal catalysis, area of critical importance in modern drug
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C122. Mathematical Methods for Chemistry. (4) Lecture, four hours. Enforced requisites: Mathematics 31A, 31B, 32A, 32B. Review of basic mathematics necessary to study physical chemistry at graduate level, with focus on review of vectors, linear algebra, elementary complex analysis and solutions of ordinary and partial differential equations. Development of problem-solving skills through homework based on these mathematical techniques, with examples from physical chemistry. Enforced concurrently scheduled with course C222. P/NP or letter grading.

C123A-C123B. Classical and Statistical Thermodynamics. (4–4) Lecture, four hours; discussion, one hour. Enforced requisites: courses 110B or 113A; courses 30C, 110B, and 113A, with grades of C– or better. Rigorous presentation of fundamentals of classical thermodynamics. Principles of statistical thermodynamics: probability, ensembles, partition functions, independent molecules, and perfect gas. Applications of classical and statistical thermodynamics selected from diatomic and polyatomic gases, solid and fluid states, phase equilibria, electric and magnetic effects, ortho-para hydrogen, chemical equilibria, reaction rates, imperfect gas, nonelectrolyte and electrolyte solutions, surface phenomena, high polymers, gravitation. May be concurrently scheduled with courses C223A-C223B.

125. Computers in Chemistry. (4) Lecture, three hours; computer laboratory, one hour. Enforced requisites: courses 110A and 113A, with grades of C– or better. Discussion of data acquisition and instrument control, scientific programming, introductory numerical, and programming tools for constructing new chemical applications, including simple force fields and resulting statistical mechanics for simple molecules, simple ab-initio methods for organic molecules and nanotubes, and classical dynamics and spectroscopy. Concurrently scheduled with course C226A. P/NP or letter grading.

C126A. Computational Methods for Chemists. (4) Lecture, four hours; laboratory, four hours. Preparation: programming experience in either BASIC, FORTRAN, C, C++, Java, or Pascal. Enforced requisites: courses 110A, 113A, and Mathematics 32B. Numerical, and programming methods; time dependent problems; atoms; spectroscopy; magnetic resonance; chemical bonding. May be concurrently scheduled with courses C215A-C215B. P/NP or letter grading.

C127. Spectroscopic Techniques in Biochemistry and Molecular Biology. (4) (Same as Chemistry Engineering CM127.) Lecture, four hours; discussion, one hour. Enforced requisites: courses 110A and 113A, with grades of C– or better. Spectroscopic techniques and applications. Special topics include magnetic resonance spectroscopy. Enforced concurrently scheduled with course C240. Letter grading.


C140. Bioanotechnology. (4) Lecture, three hours. Enforced requisites: courses 30C, 110A. Basic physical, chemical, and biological principles in bioanotechnology; materials and strategies for top-down and bottom-up fabrication of ordered biological structure. Enforced concurrently scheduled with course C240. P/NP or letter grading.

C143A. Structure and Mechanism in Organic Chemistry. (4) Lecture, three hours; discussion, one hour. Enforced requisites: courses 30C and 30CL (may be taken concurrently), 110B, and 113A, with grades of C– or better. Mechanisms of organic reactions. Acidic and basic catalysis; linear free energy relationships; iso-
top effects. Molecular orbital theory; photochemistry; pericyclic reactions. May be concurrently scheduled with course C243A. P/NP or letter grading.

C143B. Mechanism and Structure in Organic Chemistry. (4) Lecture, three hours; discussion, one hour. Requisite: course C143A with grade of C– or better. Mechanisms of organic reactions; structure and detection of reactive intermediates. May be concurrently scheduled with course C243B. P/NP or letter grading.

144. Practical and Theoretical Introductory Organic Synthesis. (5) Lecture, two hours; laboratory, eight hours. Enforced requisites: courses 30C and 30CL, with grades of C– or better. Lectures on modern synthetic techniques with emphasis on stereo- and functional group control. Laboratory methods of organic chemistry, including reaction techniques, synthesis of natural products, and molecules of theoretical interest. P/NP or letter grading.

C145. Theoretical and Computational Organic Chemistry. (4) Lecture, two hours; discussion, one hour; computer laboratory, one hour. Requisites: courses 30C, 113A. Applications of quantum mechanical concepts and methods to understand and predict organic structures and reactivities. Computational modeling methods, including laboratory experience with forced computational calculations. Concurrently scheduled with course C245. P/NP or letter grading.

147. Careers in Chemistry and Biochemistry. (2) Seminar, two hours. Exploration of employment and career opportunities in the field. Enforced requisites: different speakers give short presentations to describe their career paths in areas such as industry, government, research and development, education, law, and health care, explain how their education in chemistry and biochemistry helped them become successful, and what actual chemistry was used in their particular professions. Students learn and understand real-life applications of chemical concepts found in their course work. P/NP grading.

C150. Research Methods and Integrity in Cellular and Molecular Biology. (4) Lecture, two hours; discussion, two hours. Data analysis and management, statistical methods, use of antibody and kit reagents, figure preparation, authorship, mentoring, human subjects approval, animal subject protection, and conflict of interest. May be repeated for credit. Concurrently scheduled with course C250. Letter grading.

153A. Biochemistry: Introduction to Structure, Enzymes, and Metabolism. (4) Lecture, four hours; discussion, one hour. Requisite: course 14D or 30B, with grade of C– or better. Recommended: Life Sciences 2, 3, 23L, or 7A. Structure of proteins, carbohydrates, and lipids; enzyme catalysis and principles of metabolism, including glycolysis, citric acid cycle, and oxidative phosphorylation. P/NP or letter grading.

153AH. Biochemistry: Introduction to Structure, Enzymes, and Metabolism (Honors). (4) Lecture, three hours; discussion, one hour, tutorial, one hour. Requisite: course 153A or 153AH, with grade of C– or better. Recommended: Life Sciences 2, 3, 23L, or 7A. Structure of proteins, carbohydrates, and lipids; enzyme catalysis and principles of metabolism, including glycolysis, citric acid cycle, and oxidative phosphorylation. P/NP or letter grading.

153B. Biochemistry: DNA, RNA, and Protein Synthesis. (4) Lecture, three hours; discussion, one hour. Requisite: course 153A or 153AH. Recommended: Life Sciences 2, 3, and 23L, or 7A and 7B. Nucleotide metabolism; DNA replication; DNA repair; transcription machinery; regulation of transcription; RNA structure and processing; protein synthesis and processing. P/NP or letter grading.

153BH. Biochemistry: DNA, RNA, and Protein Synthesis (Honors). (4) Lecture, three hours; discussion, one hour. Requisite: course 153A or 153AH. Recommended: Life Sciences 2, 3, 23L, or 7A. Honors course parallel to course 153B. P/NP or letter grading.

153C. Biochemistry: Biosynthetic and Energy Metabolism and Its Regulation. (4) Lecture, three hours; discussion, one hour; tutorial, one hour. Requisite: course 153A or 153AH. Metabolism of carbohydrates, fatty acids, amino acids, and lipids; photosynthetic metabolism and assimilation of inorganic nutrients; regulation of these processes. P/NP or letter grading.

153CH. Biochemistry: Biosynthetic and Energy Metabolism and Its Regulation (Honors). (4) Lecture, three hours; discussion, two hours. Requisite: course 153B or 153BH. Honors course parallel to course 153C. P/NP or letter grading.

153D. Introduction to Protein Structural Biology. (4) Lecture, three hours; discussion, one hour. Requisites: courses 153A and 153BH or 153C. A diverse set of macromolecules that perform critical functions within cells, ranging from enzymes that catalyze metabolic reactions to proteins that enable pathogens to infect cells. Emphasis on the structural basis of protein function through visualizing atomic structures and by investigating how alterations in protein structure affects function. Students gain fundamental understanding of protein structure and its relationship to function and learn how experimental and computational methods are used to determine three-dimensional structures of proteins. Hands-on experience in computer graphics programs and online tools used to visualize and analyze protein structures. Letter grading.

153L. Biochemical Methods I. (4) Lecture, two hours; laboratory, one hour; discussion, one hour. Requisites: courses 14BL or 20L and 30AL, 153A or 153AH (may be taken concurrently), with grades of C– or better. Integrated term-long project involving biofuel production in bacteria. Purification and cellular pathway production from bacteria via affinity chromatography. Assay of protein amount, purity, and activity of enzyme. Techniques include protein determination by Bradford assay, polyacrylamide gel electrophoresis, immunoblotting, and enzyme assay activities to determine enzyme activity (Km, Vmax, inhibitor studies). P/NP or letter grading.

154. Biochemical Methods II. (4) Lecture, two hours; laboratory, eight hours. Enforced requisites: courses 153A or 153AH, 153B or 153BH, and 153L, with grades of C– or better. Recommended: course 156. Two to three major laboratory projects using biochemical laboratory techniques to investigate contemporary problems in biochemistry. Topics include transcription activation, molecular basis of DNA-protein interactions, biological plateau of platelet activation, and initiation of blood coagulation pathways. Experiments entail characterizing function of proteins, nucleic acids, and lipids involved in these processes. P/NP or letter grading.

C155. Mitochondria in Medicine, Biology, and Chemistry. (1) Seminar, two hours every other week. Open to undergraduate and graduate science majors considering or currently conducting research in areas related to mitochondria. Introduction of physiological and pathophysiological processes involving mitochondrial function and dysfunction. Focus on understanding how mitochondria metabolism, form, and function impact health and disease. Physiology and cell biology of healthy and dysfunctional mitochondria critically assessed at subcellular, cellular, tissue, and organellar levels. Topics include in-depth analyses of literature and critical evaluation of experimental design and methods of current research. May be repeated for credit. Concurrently scheduled with course CM255. P/NP grading.

156. Physical Biochemistry. (4) Lecture, four hours; discussion, one hour. Requisite: courses 110A, 153A. Biochemical kinetics; solution thermodynamics of biochemical systems; multiple equilibria; hydrodynamics; energy levels, spectroscopy, and bonding; topics from structural, statistical, and computational methods of biochemistry. P/NP or letter grading.

159. Mechanisms of Gene Regulation. (4) For- merly numbered C159A) Lecture, four hours. Requisite: course 153B. RNA polymerase mechanisms and mechanisms; promoter recognition and transcription cycle; mechanisms of activation; transcriptional positioning and elongation control; Mediator of transcription; chromatin remodeling in epigenetic regulation; cotranscriptional and transcription-coupled RNA processing; impact of transcription on mRNA production and stability; nuclear export of mRNA. Concurrently scheduled with course CM259. P/NP or letter grading.

C160A. Introduction to Bioinformatics. (4) (Same as Computer Science CM121.) Lecture, four hours; discussion, two hours. Requisite: Computer Science 32 or Program in Computing 10C with grade of C– or better, and one course from Biostatistics 100A, Civil Engineering 110, Electrical Engineering 131A, Mathematics 170A, or Statistics 109A. Prior knowledge of biology is not required. Designed for engineering students as well as students from biological sciences and medical school. Introduction to bioinformatics and methodologies, with emphasis on concepts and instrumentation to quantitative approaches to analyze biological data. Focus on sequence analysis and alignment algorithms. Concurrently scheduled with course CM260A. P/NP or letter grading.

CM160B. Algorithms in Bioinformatics. (4) (Same as Computer Science CM122.) Lecture, four hours; discussion, two hours. Requisites: Computer Science 32 or Program in Computing 10C with grade of C– or better, and one course from Biostatistics 100A, Civil Engineering 110, Electrical Engineering 131A, Mathematics 170A, or Statistics 109A. Course CM160A is not required to CM160B. Designed for engineering students as well as students from biological sciences and medical school. Development and application of computational approaches to biological questions, with focus on formulating interdisciplinary problems as computational problems and problems using algorithmic techniques. Computational techniques include those from statistics and computer science. Concurrently scheduled with course CM260B. Letter grading.

C164. Free Radicals in Biology and Medicine. (2 to 4) Lecture, three hours. Enforced requisites: courses 153A and either 153B or 153C, with grades of C– or better. Biochemical reactivity of dioxygen, its role in mitochondrial metabolism and its contribution to disease processes, apoptosis, and aging. Discussion of radical reactions, how they are harnessed to achieve enzyme catalysis, and how free radicals contribute to or regulate essential biological processes. These same reactions “run amok” under certain types of stress and can contribute to wide variety of diseases, including neurodegenerative diseases (e.g., Huntington’s, Parkinson’s, and Alzheimer’s diseases), mitochondrial diseases, atherosclerosis, and aging. Concurrently scheduled with course C264. P/NP or letter grading.


166. RNA Structure, Recognition, and Function. (4) Lecture, three hours; discussion, one hour. Requisite: courses 153A, 153B, Life Sciences 3 and 23L, or 7A. Recent years have seen explosion in biochemical characterization of diverse structures and functions of RNA molecules in metabolism of living systems. RNA has been shown to act both as catalyst in living systems as well as potent modulator of gene expression control at every level of gene expression pathways (transcription, RNA processing, translation, degradation). RNA molecules now being used as therapeutic agents in gene therapy. Use of knowledge of these various aspects and in-depth analysis of RNA structure and function, using primary research literature and analysis of molecular structures of RNA and computational complexes. (Lecture, 4; Lab, 2 to 3.)

CM170. Biochemistry and Molecular Biology of Photosynthetic Apparatus. (2 to 4) (Same as Molec- ular, Cell, and Developmental Biology M170.) Lecture, two to three hours; discussion, zero to two hours. Requisites: course 153A, 153B, Life Sciences 3 and 23L, or 7A. Recent years have seen explosion in biochemical characterization of diverse structures and functions of RNA molecules in metabolism of living systems. RNA has been shown to act both as catalyst in living systems as well as potent modulator of gene expression control at every level of gene expression pathways (transcription, RNA processing, translation, degradation). RNA molecules now being used as therapeutic agents in gene therapy. Use of knowledge of these various aspects and in-depth analysis of RNA structure and function, using primary research literature and analysis of molecular structures of RNA and computational complexes. (Lecture, 2 to 4; Lab, 2 to 3.)
Emphasis on understanding of experimental approaches. Concurrently scheduled with course C270. P/NP or letter grading.

171. Intermediate Inorganic Chemistry. (4) Lecture, three hours; discussion, one hour. Requisites: course 30B with grade of C– or better. Chemical bonding; structure and bonding of solids; main group, transition metal, lanthanide and actinide compounds and reactions; catalysis, spectroscopy, special topics. P/NP or letter grading.

172. Advanced Inorganic Chemistry. (4) Lecture, three hours; discussion, one hour. Requisite: course 171 with grade of C– or better. Systematic approach to modern inorganic chemistry, structure and bonding of nonmetals, transition metals, solids, structure-reactivity relationships, vibrational spectra of complexes, electronic structure and ligand-field theory, mechanisms of inorganic reactions, bonding and spectroscopy of organometallic compounds, transition metals in catalysis and biology. P/NP or letter grading.

C173. Electrochemical Systems. (4) Lecture, three hours; discussion, two hours. Requisites: course 110A, Mathematics 33B. Introduction to principles of electrochemistry. Physical chemistry commonly applied in search of inorganic chemistry, materials sciences, and nanotechnology. With examples in recent literature and discussions of experimental practice, focus on qualitative and quantitative evaluation of information obtained from electrochemical characterization methods. Understanding of course contents helps appreciate research and technologies in catalysis, energy storage and conversion, and advanced environmental technologies. Concurrently scheduled with course C273. P/NP or letter grading.

C174. Inorganic and Metallorganic Laboratory Methods. (4) Lecture, two hours; laboratory, eight hours. Enforced requisites: courses 30CL and 171, with grades of C– or better. Survey of inorganic compounds, including air-sensitive materials; Schlenck techniques; chromatographic and ion exchange techniques, and advanced environmental technologies. Concurrently scheduled with course C274. P/NP or letter grading.

C175. Inorganic Reaction Mechanisms. (4) Lecture, three hours; laboratory, eight hours. Enforced requisites: courses 30CL and 171, with grades of C– or better. Survey of inorganic reactions; mechanistic principles; electronic structure of metal ions; transition-metal coordination chemistry; inner- and outer-sphere and charge transfer complexes; substitution, isomerization, and racemization reactions; stereochemistry; oxidation/reduction, free radical, polymerization, and photochemical reactions of inorganic compounds. May be concurrently scheduled with course C275. P/NP or letter grading.

C176. Group Theory and Applications to Inorganic Chemistry. (4) Lecture, three hours; discussion, one hour. Requisites: courses 110A and 110B, 113A, and 172, with grades of C– or better. Survey of inorganic reactions; mechanistic principles; electronic structure of metal ions; transition-metal coordination chemistry; inner- and outer-sphere and charge transfer complexes; substitution, isomerization, and racemization reactions; stereochemistry; oxidation/reduction, free radical, polymerization, and photochemical reactions of inorganic compounds. May be concurrently scheduled with course C276. P/NP or letter grading.

C180. Solid-State Chemistry. (4) Lecture, three hours. Requisite: course 172 with grade of C– or better. Survey of new materials and methods for their preparation and characterization, with emphasis on band theory and its relationship to chemical, optical, and transport, and magnetic properties, leading to deeper understanding of these materials. Concurrently scheduled with course C280. P/NP or letter grading.

C181. Polymer Chemistry. (4) Lecture, three hours; discussion, one hour. Requisites: courses 110A and 110B, 113A, and 172. Synthesis of organic and inorganic macromolecules, thermodynamic and statistical mechanical descriptions of unique properties of polymers, polymer characterization, and applications of polymer sciences such as conductive and biomedical polymers and polymeric reagents in synthesis. Concurrently scheduled with course C281. P/NP or letter grading.

184. Chemical Instrumentation. (5) Lecture, two hours; lab, five hours. Enforced requisites: courses 30CL and 110A, with grades of C– or better. Theory and practice of instrumental techniques of chemical and structural analysis, including atomic absorption spectroscopy, gas chromatography, mass spectrometry, nuclear magnetic resonance, polarography, X-ray fluorescence, and other modern methods. P/NP or letter grading.


M186. Stochastic Processes in Biochemical Systems. (4) (Same as Computational and Systems Biology C186.) Lecture, three hours. Requisites: Life Sciences 1, 2, 3, and 4, or 7A, 7B, and 7C, Mathematics 33B, Electrical and Computer Engineering 131A or Mathematics 170A or Statistics 100A. Covers random and stochastic processes in play in biochemical systems, including ion channels, cytokine, cell migration and mitosis, gene expression networks, and signal transduction. Covers mathematical tools such as continuous and discrete Markov processes, first passage, time escape problems, statistical mechanics, and information theory. Letter grading.

188A. Individual Studies for USIE Facilitators. (1) Tutorial, to be arranged. Enforced corequisite: Honors College USIE 194. Individual study in regularly scheduled meetings with faculty mentor to discuss selected USIE seminar topic, conduct preparatory research, and begin preparatory and written proposal for USIE. Individual contract with faculty mentor required. May not be repeated. Letter grading.


188C. Individual Studies for USIE Facilitators. (2) Tutorial, to be arranged. Enforced requisite: course 188B. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor while facilitating USIE 88S course. Individual contract with faculty mentor required. May not be repeated. Letter grading.

189. Advanced Honors Seminars. (1) Seminar, three hours. Limited to juniors. Enrolled as adjunct to undergraduate lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be repeated for credit for undergraduates. Honors content noted on transcript. P/NP or letter grading.

189HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to upper-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

192A-192B. Undergraduate Practicum in Chemistry and Biochemistry. (4–4) Lecture, one hour; laboratory, four hours; workshop, two hours. Enforced requisites: courses 14BL and 14CL, or 20L and 30AL, or Science Education 100SL. Intended for students who are planning careers in secondary science chemistry teaching. Complements service learning California Teach science courses that involve teaching field experiences in middle school and high school classrooms. Topics include: classroom management, special issues such as chemical storage and use, waste management, laboratory organization, safety, and techniques. P/NP or letter grading.

192C-192D. Undergraduate Assistant Education Practicum in Chemistry and Biochemistry. (1–3) Seminar, one hour; assigned setting, six hours (course 192C) or five hours (course 192D). Limited to juniors/seniors. Training and supervised practicum for advanced undergraduate students to assist in chemistry and biochemistry laboratories. Students assist in preparation of materials and development of innovative programs under guidance of faculty members and teaching assistants. May not be applied toward course requirements for any departmental major. May be repeated for credit with consent of instructor. Individual contract required. Information and contracts may be obtained from department. P/NP grading.

192E. Introduction to Collaborative Learning Theory and Practice: Introduction, Methods, and Applications. (1) Seminar, one hour. Requisite: at least one term of prior experience in same course in which collaboration learning theory is practiced and refined under supervision of instructors. Training seminar for undergraduate students who are selected for learning assistants (LA) program. Exploration of current topics in pedagogy and education research focused on methods of learning and their practical application in small-group settings. Students practice communication skills with frequent assessment of and feedback on progress. Letter grading.

192F. Methods and Application of Collaborative Learning Theory and Practice: Introduction, Methods, and Applications. (2 to 4) Seminar, one hour; clinic, one to eight hours. Requisite: course 192E or Life Sciences 192A or 192B with grade of C– or better. With instructor guidance, students apply pedagogical principles based on current education research, assist with development of innovative instructional materials, and reflect on their feedback on their progress. May be repeated for four times for credit. Letter grading.

193A. Journal Club Seminars: UC LEADS and MARC. (2) Seminar, three hours. Designed for juniors/seniors in undergraduate research training programs such as UC LEADS and MARC or those who have strong commitment to pursue graduate studies in natural sciences, engineering, or mathematics. Weekly reading and oral presentations of research papers selected from current literature. May be repeated for credit. Letter grading.

193B. Journal Club Seminars: Chemistry and Biochemistry. (2) Seminar, three hours. Limited to under-graduate students. Discussion of readings selected from current literature in particular field. May be repeated for credit. P/NP grading.

194. Research Group Seminars: Chemistry and Biochemistry. (1) Seminar, three hours. Limited to senior USIE participants. Discussion of readings selected from current literature in particular field. May be repeated for credit. P/NP grading.

195. Directed Research in Chemistry and Biochemistry. (2 to 4) Limited to juniors/seniors. Entry-level research apprenticeship for undergraduate students who are part of research group. Advanced study and analysis of current topics in physical, organic, or inorganic chemistry or biochemistry. Discussion of reading and literature in research specialty of faculty member teaching course. May be repeated for credit. P/NP grading.

196A. Research Apprenticeship in Chemistry and Biochemistry. (2 to 4) Tutorial, three hours per week per unit. Limited to juniors/seniors. Entry-level research apprenticeship for upper-division students under guidance of faculty mentor. Consult department for additional information regarding requirements, enrollment, and written proposal deadlines. May be repeated for maximum of 8 units. Individual contract required. P/NP grading.


199. Directed Research in Chemistry and Biochemistry. (2 to 4) Tutorial, three hours per week per unit. Limited to juniors/seniors. Entry-level research apprenticeship for upper-division students under guidance of faculty mentor. Consult department for additional information regarding requirements, enrollment, and written proposal deadlines. May be repeated for maximum of 12 units. Individual contract required. P/NP or letter grading.
Graduate Courses

C200. Genomics and Computational Biology. (5) Lecture, four hours; discussion, one hour. Introduction for biochemistry students of technologies and experimental data of genomics, as well as computational tools for analyzing them. Bioinformatics and molecular biology dissected life into its component parts, one gene at a time, but lacked integrative mechanisms for putting this information back together to predict what happens in whole organisms. (E.g., over 90 percent of drug candidates fail in clinical trials). High-throughput technologies such as sequencing, microarrays, mass-spectra, and robotics have given biologists increased capabilities to analyze complete genomes, expression patterns, functions, and interactions across whole organisms, populations, and species. Use and analysis of such datasets becomes essential daily activity for biomedical scientists. Core principles and methodologies for analyzing genomics data to answer biological and medical questions, with focus on concepts that guide data analysis rather than algorithm details. Concurrently scheduled with course C100. S/U or letter grading.

201. Scientific Proposal Writing. (2) Lecture, three hours. Enforced requisites: course 203A or 203B or 203C. Designed for graduate biochemistry and molecular biology students to write scientific proposals to be submitted to funding agencies. How to develop curricula vitae, put together grant proposals, and critique proposals. Letter grading.

203B. Ethics in Chemical Research. (2) Seminar, one hour. Focus on ethical issues in graduate education, teaching, and chemical research, including issues such as conflicts of interest, plagiarism, intellectual property, sexual harassment, and other topics related to ethical conduct of research. S/U grading.

203C. Research Integrity and Ethics in Genetics Research. (2) Lecture, 90 minutes. Data analysis and management, statistical methods, use of commercial reagents, microscopy data analysis, figure preparation, authorship and human subject protection, animal subject protection, and conflict of interest. May be repeated for credit. S/U grading.

203D. Advanced Topics in Responsible Conduct in Cellular and Molecular Biology Research. (2) Seminar, two hours. Enforced requisites: courses 203A or 203B or 203C. Cellular and molecular biology PhD students continue to learn how to conduct research in a field to reliably advance knowledge while maintaining ethical principles. Students will be taken in fourth or fifth year of PhD work where students would have already been exposed to many challenges of performing and reporting research. Students who are starting their careers where they are beginning to think of applying for postdoctoral fellowships and research and teaching positions. Course helps fulfill training requirement in responsible conduct for NIH training grants and individual NRSA awards. S/U grading.

204. Student Research Seminar. (2) Seminar, one hour. Limited to students supported by UCLA program in Cellular and Molecular Biology Predoctoral Training. Research hours required by second- and third-year students. S/U grading.

CM205A. Introduction to Chemistry of Biology. (4) (Same as Pharmacology M205A) Lecture, three hours; discussion, one hour. Introduction to chemical biology. Topics include computational chemical biology, utility of synthesis in biochemical research, peptide/nucleic acid, designed reagents for cellular imaging, natural product biosynthesis, protein engineering and directed evolution of metal complexes and imaging metal ions in cells, metal-containing drugs. Concurrently scheduled with course C105. Letter grading.

CM205B. Issues on Chemistry/Biology Interface. (2) (Same as Pharmacology M205B) Seminar, two hours. Enforced requisites: course CM205A. Selected talks and papers presented by training faculty on solving problems and utilizing tools in chemistry and molecular biology on chemistry/biology interface (C2B). S/U grading.

CM206. Chemistry Seminar. (2) Seminar, three hours. Limited to students supported by UCLA program in Chemistry/Biology Interface Predoctoral Training. Current research topics at interface of chemistry and biology. May be repeated for credit. S/U grading.

C217. Organometallic Chemistry. (4) Lecture/discussion, three hours. Enforced requisites: course 172. Survey of synthesis, structure, and reactivity (emphasizing mechanistic approach) of compounds containing carbon bonded to elements selected from main group metals, transition metals, and transition metals, including olefin complexes and metal carbonyls; applications in catalysis and organic synthesis. Concurrently scheduled with course C107. S/U or letter grading.


219. Introduction to Chemistry Research. (2) Seminar, two hours. Half-hour presentations each session by three different chemistry professors to introduce their research programs. S/U grading.

219D. Advanced Topics in Chemical Research. (2) Seminar, one hour. Designed for second-year graduate students to help them engage contemporary challenges in chemistry and their own research projects. Building of critical thinking skills and proposal writing skills. S/U grading.

C219B. Physical Chemistry: Molecular Spectroscopy. (4) Lecture, three hours; discussion, one hour. Requisite: course 113A. Interaction of radiation with matter, microwave spectroscopy, infrared and Raman spectroscopy, vibrations in polyatomic molecules, electronic spectroscopy, magnetic resonance spectroscopy. Concurrently scheduled with course C113B. Independent study project required of graduate students. S/U or letter grading.

C215A-C215B. Quantum Chemistry: Methods. (4-5) Lecture, three to four hours; discussion, one hour. Requisites: course 113A, Mathematics 31A, 31B, 32A, 32B, 33A, with grades of C– or better. Recommended: knowledge of differential equations equivalent to Mathematics 134 or 135 or Physics 131 and of analytical mechanics equivalent to Physics 105A. Course C215A or Physics 115B with grade of C– or better is requisite to C215B. Students entering course C215A are strongly recommended to complete C215B in following term. Designed for chemistry students with serious interest in quantum chemistry. Postulates and systematic development of nonrelativistic quantum mechanics; expansions; oscillators; angular momentum; hydrogen atom; matrix techniques; approximation methods; time dependent problems; atoms; spectroscopy; magnetic resonance; chemical bonding. May be concurrently scheduled with courses C115A-C115B. S/U or letter grading.


218. Chemistry Student Exit Seminar. (2) Seminar, two hours. Seminars presented by staff, outside speakers, and graduate students. Open to all chemistry graduate students. May be repeated for credit. S/U grading.

219A. Seminars: Research in Physical Chemistry—Photon Resolved Spectroscopy of Materials (Physical Chemistry). (2) Seminar, three hours. Limited to chemistry graduate students. Discussion of recent progress in area of photon resolved spectroscopies, with focus on materials and biophysics applications. Literature discussion, discussion of recent results, science topics, and advanced topics of collaborative projects. S/U or letter grading.


221A-221Z. Advanced Topics in Physical Chemistry. (2 to 4 each) Lecture, two to four hours. Each course encompasses one recognized specialty in physical chemistry, generally taught by faculty members whose research interests embrace that specialty. S/U or letter grading.

C222. Mathematical Methods for Chemistry. (4) Lecture, four hours. Enforced requisites: Mathematics 31A, 31B, 32A, 32B. Recommended: Mathematics necessary for study physical chemistry at graduate level, with focus on review of vectors, linear algebra, elementary complex analysis, and solution of ordinary and partial differential equations. Laboratory, one hour. Problem-solving skills through homework based on these mathematical techniques, with examples from physical chemistry. Concurrently scheduled with course C212. S/U or letter grading.

C223A-C223B. Classical and Statistical Thermodynamics. (4-4) Lecture, four hours; discussion, one hour. Requisite: course 110B or 156. Recommended: course 113A. Presentation of fundamentals of classical and statistical thermodynamics. Principles of thermodynamics: probability, ensembles, partition functions, independent molecules, and perfect gas. Applications of classical and statistical thermodynamics selected from diatomic and polyatomic gases, solid and fluid states, phase equilibria, electric and magnetic effects, ortho-para hydrogen, chemical equilibrium, reaction rates, imperfect gas, nonelectrolyte and electrolyte solutions, surface phenomena, high polymers, gravitation. May be concurrently scheduled with courses C213A-C213B. S/U or letter grading.


C226A. Computational Methods for Chemists. (4) Lecture, four hours; laboratory, four hours. Preparation: programming experience in either BASIC, FORTRAN, C, ++, JAVA, or Pascal. Requisites: courses 110A, 113A. Mathematics 33A. Theoretical, numerical, and programming tools for constructing new chemical applications, including simple force fields and resulting statistical mechanics for simple molecules, and methods for organic molecules and nanotubes, and classical and dynamic spectroscopy. Concurrently scheduled with course C126A. S/U or letter grading.

CM227. Synthetic Biology for Biotechnology. (4) (Same as Chemical Engineering CM227.) Lecture, four hours; discussion, one hour. Requisite: course 153A. Engineering microorganisms for complex phenotype is common goal of metabolic engineering and synthetic biology. Conception of advances in designing and constructing novel metabolic networks in cells. Such efforts require profound understanding of biotechnology, protein structure, and cellular regulation. Applications and tools for understanding metabolism and gene regulation. Use of systems modeling for metabolic engineering. Concurrently scheduled with course CM127. S/U or letter grading.

249A. Methods of Materials Chemistry: Synthesis, Characterization, Physical Properties, Applications, and Devices. 2 hours. Seminar. Designed for first-year graduate students to teach advanced problems in critical thinking, with focus on problems and recent literature pertaining to materials chemistry. How materials are synthesized and characterized. Discussion of important physical properties, as well as broad range of applications and behavior in devices. S/U grading.

249B. Methods of Chemical Synthesis: Organic/Inorganic/Organometallic. 2 hours. Seminar. Designed for first-year graduate students to teach advanced problems in critical thinking, with focus on problems and recent literature pertaining to chemical synthesis of organic, inorganic, and organometallic compounds. S/U grading.

250. Research Methods and Integrity in Cellular and Molecular Biology. 4 hours. Lecture, two hours; discussion, one hour. Critical analysis of data and methodologies, with emphasis on concepts and techniques used to study structure and function of biological systems. Seminar. S/U grading.

255. Mitochondria in Medicine, Biology, and Chemistry. 1 hour. Seminar, two hours every other week. Open to undergraduate and graduate students majoring in or considering careers in medicine and biology. Corequisite: course C255M, C255P, C255R. Letter grading.

262. Bioinformatics. 4 hours. Lecture, two hours; discussion, one hour. Introduction to computational methods in bioinformatics and computer science. Corequisites: Computer Science 10C or Program in Computing 10A, Introduction to Bioinformatics 221. Letter grading.

266. Bioinformatics. 3 hours. Required for students enrolled in Bioinformatics M221. S/U or letter grading.
260BL. Advanced Bioinformatics Computational Laboratory. (2) Laboratory, four hours. Enforced requisites: course CM260A. Corequisites: course CM260B. Development and application of computational approaches to ask and answer biological questions by implementing bioinformatics and algorithms of biology algorithms. Advantages and disadvantages of different algorithmic methods for studying biological questions and preliminary understanding of how to compute distinctive significance of results. Development of conceptual understanding of implementation of bioinformatics algorithms and foundation for how to do innovative work in these fields. Experience in observing individual complexity of algorithms in computing solutions. S/U or letter grading.

262. Biochemistry and Molecular Biology of Protein Translocation Systems. (3) Lecture, two hours; discussion, zero to two hours. Requisites: courses 153A through 156D. Protein translocation into nucleus, mitochondrion, peroxisome, chloroplast, endoplasmic reticulum, and protein export in bacteria. Letter grading.

264. Free Radicals in Biology and Medicine. (2 to 4) Lecture, three hours. Enforced requisites: courses 153A and either 153B or 153C, with grades of C– or better. Biochemical reactivity of dioxygen, its role in mitochondrial redox and neurodegenerative diseases, apoptosis, and aging. Discussion of radical reactions, how they are harnessed to achieve enzyme catalysis, and how free radicals contribute to or regulate essential biological processes. These reactions “run amok” under certain types of stress and can contribute to wide variety of diseases, including neurodegenerative diseases (e.g., Huntington’s, Parkinson’s, and Alzheimer’s diseases), mitochondrial diseases, atherosclerosis, and aging. Concurrently scheduled with course C164, S/U or letter grading.

265. Metabolic Control by Protein Modification. (4) Lecture, three hours; discussion, one hour. Requisites: course 110A or 153A. Biochemical basis of controlling metabolic pathways by posttranslational modification of proteins, including phosphorylation and methylation reactions. Concurrently scheduled with course C165. Letter grading.


267. Nanoscience and Chemistry. (4) Lecture, four hours. Enforced requisites: courses 110A, 110B, 113A, 171, and 172. Designed for advanced undergraduate and graduate students. Why nanoscience is important and interesting and critical role of chemistry in nanoscience. Chemistry of protein structures, synthesis and characterization of synthetic nanomaterials, including metallic nanostructures (nanocrystals, nanorods, nanowires), semiconductor nanostructures (quantum dots/rods, nanowires, plates), and carbon nanostructures (fullerenes, nanotubes, graphene). Discussion of synthetic approaches, structures, and physical properties, as well as potential technological opportunities of each. Letter grading.


270. Biochemistry and Molecular Biology of Photosynthetic Apparatus. (2 to 4) Lecture, two to three hours; discussion, zero to two hours. Requisites: courses 153A and either 153B or 153C, with grades of C– or better. Survey of new materials and methods for their preparation and characterization, with emphasis on band theory and its relationship to chemical, optical, transport, and magnetic properties, leading to deeper understanding of these materials. Concurrently scheduled with course C170. S/U or letter grading.

271. Advanced Topics in Inorganic Chemistry. (2 to 4) Lecture, two to four hours. Each offering encompasses one recognized specialty in inorganic chemistry, generally taught by faculty members whose research interests embrace that specialty. S/U or letter grading.

272A-272N. Seminars: Research in Inorganic Chemistry. (2) Seminar, 90 minutes. Required of students entering graduate inorganic chemistry students. S/U or letter grading.

272C. Inorganic Spectroscopy. (2) Seminar, 90 minutes. Required of students entering graduate inorganic chemistry students. S/U or letter grading.


272K. Inorganic and Metalorganic Laboratory. (2) Lecture, four hours; laboratory, eight hours. Enforced requisites: courses 153A and either 153B or 153C, with grades of C– or better. Survey of new materials and methods for their preparation and characterization, with emphasis on band theory and its relationship to chemical, optical, transport, and magnetic properties, leading to deeper understanding of these materials. Concurrently scheduled with course C180. S/U or letter grading.

272N. Solid-State Chemistry. (4) Lecture, three hours. Requisite: course 172 with grade of C– or better. Survey of new materials and methods for their preparation and characterization, with emphasis on band theory and its relationship to chemical, optical, transport, and magnetic properties, leading to deeper understanding of these materials. Concurrently scheduled with course C180. S/U or letter grading.

272P. Inorganic Chemistry Research Seminar. (2) Seminar, 90 minutes. Required of students entering graduate inorganic chemistry students. S/U or letter grading.


tive learning, laboratory safety, ethical issues, field experiences, and professional development. S/U or letter grading.

375. Teaching Apprentice Practicum. (1 to 4) Seminar, to be arranged. Preparation: apprentice personnel employment as teaching assistant, associate, or fellow. Teaching apprenticeship under active guidance and supervision of regular faculty member responsible for curriculum and instruction at UCLA. May be repeated for credit. S/U grading.

400. Safety in Chemical and Biochemical Research. (2) Lecture, two hours. Survey of safe laboratory practices for experimental research in organic, inorganic, and physical chemistry and biochemistry. Topics include laser safety, cryogenic hazards, high and low-pressure experimentation, gas and carcinogen handling, chemical spills, fire extinguishing, and chemical disposal. S/U grading.

495. Teaching College Chemistry. (2) Seminar, two hours; discussion, two hours; 20 hours training during week prior to Fall Quarter. Course for teaching assistants designed to deal with problems and techniques of teaching college chemistry. S/U grading.

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Lecturer
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Scope and Objectives
The mission of the UCLA César E. Chávez Department of Chicana and Chicano Studies is to train a new generation of scholars to research and analyze the life, history, and culture of Mexican-origin people within the U.S., as well as of other Latina/Latino and indigenous populations in the Americas.

Addressing local, national, and transnational contexts, the Chicana and Chicano Studies curriculum at UCLA explores race, class, gender, and sexuality paradigms as they have shaped the history of the field, as well as new directions in the study of Chicanas/Chicanos and Latinas/Latinos, including border and transnational studies; expressive arts; history, literature, and language of Americas; and labor, law, and policy studies.

Departmental faculty members, situated in one of the most diverse cities in the world, utilize Los Angeles as a laboratory for studying the social transformations taking place in California, the Southwest, and the U.S. The department provides students with the interdisciplinary research tools necessary to advance knowledge in the field, provide academic leadership, and serve community needs with academic resources.

Undergraduate Study
The Chicana and Chicano Studies Department offers a designated capstone program for undergraduate majors. Students have options for completing a senior honors thesis, individual research, or senior project under the direction of a faculty member. Alternatively, students may elect to complete an upper-division course that includes additional coursework culminating in completion of a capstone paper or creative project. Through their capstone work, students are expected to demonstrate working knowledge of the major findings and methods of the disciplines from which they have drawn their Chicana and Chicano studies coursework, show their capacities for conceiving and executing a research or creative project on a self-selected topic as well as identifying and evaluating relevant documentation pertaining to that project, demonstrate appropriate levels of scholarly discourse on their selected topic, and develop greater capacity to be of lifelong service to the Chicana/Chicano and Latino/Latino community and to global society in the tradition of César Chávez and scholar activist exemplars.

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Chicana and Chicano Studies

Capstone Program

The BA program in Chicana and Chicano Studies is committed to the practice of different forms of scholarship and pedagogy and to the promotion of critical thinking about such issues as gender, sexuality, social action, language, race, ethnicity, class, assimilation/acculturation paradigms, and indigenous traditions. The literary and visual arts often function as vehicles for social change and creative empowerment, and so they constitute one focus of the curriculum, that aims to strike a balance among the social sciences, humanities, arts, and the professions. The major prepares students for graduate education in academic and professional fields and for a variety of positions that involve community and social service in the U.S. and abroad.

Learning Outcomes
The Chicana and Chicano Studies major has the following learning outcomes:

- Demonstrated skills and expertise, including research, analysis, and writing
- Demonstrated familiarity and competence in a range of interdisciplinary methodologies and approaches
- Demonstrated ability to identify and analyze appropriate primary and secondary sources, material evidence, and other primary documents
- Demonstrated mastery and integration of knowledge and learned abilities
- Demonstrated ability to use knowledge gained in classroom to conceive and execute projects
- Demonstrated broad knowledge of fundamentals acquired through coursework, as informed by race, class, gender, and sexuality paradigms
- Conception and execution of an original research project that identifies and engages with a topic relevant to the student’s area of concentration
- Presentation of work to peers for discussion and critique

Preparation for the Major

Required: Chicana and Chicano Studies 10A, 10B, Spanish 5 or equivalent.

Transfer Students

Transfer applicants to the Chicana and Chicano Studies major with 90 or more units must complete as many of the following introductory courses as possible prior to admission to UCLA: one interdisciplinary Chicana/Chicano history and culture course, one interdisciplinary Chicana/Chicano social structure and contemporary conditions course, and five quarter terms of Spanish.

Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

The Major

Required: A total of 11 upper-division courses, including Chicana and Chicano Studies 101; one ser-
vice learning course from 100SL or M170SL or from the approved list available in the department office each term; two related study courses from the approved list of courses outside the department (related study includes courses that provide a comparative perspective to Chicana and Chicano studies and/or a contextualization of Chicana and Chicano communities in the world); one advanced seminar course from 191 or another course by petition to the department chair; and a concentration of four courses in one area listed below and two courses in a second area:

Border and Transnational Studies: Chicana and Chicano Studies CM110, 120, M124, M125, M126, M132, 143, M144, CM147, 151, 152, 153A, M154, M155A, M156A, 163, 176, 184, 191


No more than 8 units of 188, 191, and 199 courses may be applied toward the major; enrollment in the courses must be approved in writing by the department chair.

Each major course must be taken for a letter grade, and students must have an overall grade-point average of 2.0 or better.

Honors Program

The Chicana and Chicano Studies honors program provides the opportunity for motivated and dedicated students to undertake a year-long research or creative project with the guidance and supervision of a faculty member. The program is open to all juniors and seniors who have a 3.5 grade-point average in the major, a cumulative GPA of 3.0 or better, and completed 90 or more total units, including Chicana and Chicano Studies 10A, 10B, and one course from 89, 89HC, 189, or 189HC.

The application for admission must be submitted in spring quarter of the year prior to admission to the program, with the advice and consent of a faculty sponsor. The proposal, research, data collection, analysis, and writing of the thesis (or the creative equivalent to this process) take place in Chicana and Chicano Studies 198A, 198B, and 198C, which may not be applied toward the major requirements. An honors thesis of at least 30 pages or a significant creative project is required.

Students who are currently undertaking the optional multidisciplinary senior thesis and who are eligible for the honors program may opt to switch to the honors program (provided it does not delay their progress toward the degree) with the approval of the department.

Optional Multidisciplinary Senior Thesis

Chicana and Chicano Studies majors have the option during their senior year to enroll in two 199 courses with the intention of producing an undergraduate thesis. The first term includes thesis conceptualization and formulation, along with preliminary data collection for the thesis. The second term entails completion of the data collection, analysis of the data, and writing of the thesis. Enrollment in the two 199 courses is with the advice and consent of a faculty member.

Chicana and Chicano Studies Minor

The Chicana and Chicano Studies minor complements study in another traditional field. Students participating in the minor are required to complete both a departmental major in another discipline and the Chicana and Chicano Studies minor.

To enter the minor, students must have an overall grade-point average of 2.0 or better, have completed 45 units, and file a petition with the student adviser in 7351 Bunche Hall.

Required Lower-Division Courses (10 units): Chicana and Chicano Studies 10A, 10B.

Required Upper-Division Courses (20 units minimum): Chicana and Chicano Studies 101 and four elective courses (20 units minimum) selected from the approved list (available in the department office each term).

A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor.

Each minor course must be taken for a letter grade, and students must have an overall grade-point average of 2.0 or better in the minor. Successful completion of the minor is indicated on the transcript and diploma.

Graduate Study

Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Division website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Graduate Degrees

The César E. Chávez Department of Chicana and Chicano Studies offers Master of Arts (MA) and Doctor of Philosophy (PhD) degrees in Chicana and Chicano Studies.

Chicana and Chicano Studies

Lower-Division Courses

M5A-M5B-M5C. Elementary Nahuatl. (4–4–4) Same as Indigenous Languages of the Americas M5A-M5B-M5C and International and Area Studies M5A-M5B-M5C (Lecture, five hours. Course M5A is enforced requisite to M5B, which is enforced requisite to M5C. Introduction to Aztec language of central Mexico. Coverage of basic Nahuatl grammar, with equal emphasis on reading, writing, conversation, and comprehension. P/NP or letter grading.

10A. Introduction to Chicana/Chicano Studies: History and Culture. (5) Lecture, three hours; discussion, one hour. Interdisciplinary survey of diverse historical experiences, cultural factors, and ethnic/racial paradigms, including indigenousness, gender, sexuality, language, and borders, that help shape Chicana/Chicano identities. Emphasis on critical reading and writing skills. Letter grading.

10B. Introduction to Chicana/Chicano Studies: Social Structure and Contemporary Conditions. (5) Lecture, three hours; discussion, one hour. Multidisciplinary examination of representation, ideologies, and material conditions of Chicanas/Chicanos, including colonialism, race, labor, immigration, poverty, assimilation, and patriarchy. Emphasis on critical reading and writing skills. Letter grading.


M18. Leadership and Student-Initiated Retention. (2) Same as American Indian Studies M18, American Indian Studies M18 (Seminar, two hours. Limited to freshmen/sophomores/first-year transfer students. Not open for credit to students with credit for course M118. Exploration of issues in retention at UCLA through lens of student-initiated and student-run programs, efforts, activities, and services. Focus on populations with historically low graduation rates targeted by Campus Retention Committee. May not be applied toward departmental major or minor elective requirements. May be repeated once for credit. Letter grading.

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.


88. Sophomore Seminars: Chicana and Chicano Studies. (2) Seminar, two hours. Limited to lower-division students. Readings and discussions designed to introduce students to current research in Chicana/Chicano studies. Culminating project may be required.
May not be applied toward departmental major or minor requirements. May be repeated for credit with topic change. P/NP or letter grading.

89. Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to lower-division lecture course. Exploration of topics in greater depth through readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

89HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to lower-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

97. Variable Topics in Chicana and Chicano Studies. (2) Seminar, two hours. Requisite: course 10A or 10B. Current topics and particular research methods in Chicana and Chicano studies through readings and other assignments. May be repeated for credit. P/NP or letter grading.

98. Professional Schools Seminars. (2) Seminar, two hours. Limited to 20 students. Introduction to issues of professional (nonacademic) settings and careers through readings and other assignments. P/NP or letter grading.

99. Student Research Program. (1 to 2) Tutorial (supervised research or other scholarly work), three hours per week per unit. Entry-level research for lower-division students under guidance of faculty mentor. Students must be in good academic standing and enrolled in appropriate units (excluding courses). Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP grading.

Upper-Division Courses

100SL. Barrio Organization and Service Learning. (5) Seminar, two hours; discussion, two hours; field placement, six hours. Limited to juniors/seniors. Service learning placement in community-based organization, labor union, or service-oriented nonprofit organization. Study of role that these organizations play in improving the quality of life of Chicana/Chicano communities. Students meet on regular basis with instructors and provide periodic reports of their experience. Letter grading.


M102. Mexican Americans and Schools. (4) Same as Education M102.) Seminar, two hours; discussion, two hours. Theoretical and empirical overview of Chicana/Chicana educational issues in U.S., with special emphasis on disentangling effects of race, gender, class, and immigrant status on Chicana/Chicano educational experience. P/NP or letter grading.

M103C. Origins and Evolution of Chicano Theater. (5) (Same as Theater M103C.) Lecture, three hours. Designed for juniors/seniors. Exploration of development of Chicano theater from its beginning in legends and rituals of ancient Mexico to work of Luis Valdez (late 1960s). P/NP or letter grading.

M103D. Contemporary Chicano Theater: Beginning of Chicano Theater Movement. (5) (Same as Theater M103D.) Lecture, three hours. Analysis and discussion of historical and political events from 1965 to 1980, as well as theatrical traditions that led to emergence of Chicano theater. Letter grading.

M103G. Contemporary Chicano Theater: Chicano Theater since 1980. (6) (Same as Theater M103G.) Lecture, three hours. Analysis and discussion of Chicano theater since 1980, including discussion of Chicana playwrights, magic realism, Chicano comedy, and Chicano performance art. P/NP or letter grading.

104. Comedy and Culture: Your Humorous Life. (4) Lecture, four hours. How to mine unique humorous life adventures from students’ cultural identities and turn those distinct experiences into humorous literature. Students develop original humorous stories out loud, with emphasis on comedy in their pieces through art of storytelling and performance. P/NP or letter grading.

104A. Art of Performance. (4) Seminar, four hours. Examination of seminal works of Latina/o/x theater artists with particular focus on creating and embodying personal histories in performance. Features dramatic plays, autobiographical texts, and ensemble devised works that reflect changing nature of Latina/o/x cultural landscape. Introduction to basic elements of acting, including collaborative group performance, physical storytelling, and voice/speech exercises designed to free creative voice. Examination of performance of cultural expression, political tool, and personal identity. P/NP or letter grading.

M105A. Early Chicana/Chicana Literature, 1400 to 1920. (5) Same as English M105A.) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3 or 3H. Survey of Chicana/Chicano literature from poetry of Triple Alliance and Aztec civilization to Revolution. Emphasis on Chicana/Americo Peninsular literature (1920), including oral and written forms (poetry, corridos, testimonios, folklore, novels, short stories, and drama) by writers such as Nezahualcóyotl (Huerta Indian), Aldama de Zavala, María Amparo Ruiz de Burton, Eusebio Chacón, Daniel Venegas, and Lorena Villegas de Magón. P/NP or letter grading.

M105B. Chicana/Chicana Literature from Mexican Revolution to el Movimiento, 1920 to 1970s. (5) (Same as English M105B.) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3 or 3H. Survey of Chicana/Chicano literature since 1920s through Great Depression and World War II, ending with Chicana/Chicana civil rights movement. Oral and written narratives by writers including ConradoEspriella, Jovita González, Olefás Jara- millo, Angélica María Pérez, Jesús Franco, Oscar Acosta, and Evangelina Vigil. P/NP or letter grading.

M105C. Chicana/Chicana Literature since el Movimiento, 1970s to Present. (5) (Same as English M105C.) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3 or 3H. Survey of Chicana/Chicano literature since 1970s, with particular emphasis on how queer feminism as well as Central and South American migration have shaped 21st-century chicana/o/x literary and visual art. Oral and written narratives by writers including Conrado Espriella, Jovita González, Olefás Jaraimil, Angélica María Pérez, Jesús Franco, Oscar Acosta, and Evangelina Vigil. P/NP or letter grading.

M105D. Introduction to Latin/o/Latino Literature. (5) (Same as English M105D.) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3 or 3H. Survey of Chicana/Chicano literature since 1970s, with particular emphasis on how queer feminism as well as Central and South American migration have shaped 21st-century chicana/o/x literary and visual art. Oral and written narratives by writers including Conrado Espriella, Jovita González, Olefás Jaraimil, Angélica María Pérez, Jesús Franco, Oscar Acosta, and Evangelina Vigil. P/NP or letter grading.

M105F. Gender, Fiction, and Social Change. (4) (Same as Gender Studies M105F.) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3 or 3H. Examines Chicana/Latina health status through life expectancy, causes of death, reportable diseases, services utilization, provider supply, and risk behaviors within demographic/immigration changes. Binational review of health effects in U.S. and Mexico. Concurrently scheduled with course 227F. Letter grading.

M106B. Diversity in Aging: Roles of Gender and Ethnicity. (3) Same as Gerontology M106B, Gerontology M104C, Public Affairs M131, and Social Welfare M104C.) Lecture, four hours. Exploration of complexity of variables related to diversity of aging population and variability in aging process. Examination of gender and ethnicity within context of both physical and social aging, in multidisciplinary perspective utilizing faculty from variety of fields to address issues of diversity. Letter grading.

M106S. Chicana/Latina Families in U.S. (4.) Lecture, four hours; discussion, one hour (when scheduled). Study of how intersections of race, class, and gender help shape experiences of Latina/Latino families in U.S. sociocultural and how these intersections also help shape individual experiences within families. Examination of family, race, class, and gender as sociological concepts. Readings about family experiences of Mexican and Central American groups in U.S., with special emphasis on immigrants, and analysis of how race, class, and gender together play important roles in shaping these experiences. Discussion of roles of structure and space for agency in each context. Concurrency scheduled with course C212. P/NP or letter grading.

M108A. Music of Latin America: Mexico, Central America, and Caribbean Islands. (5) (Same as Ethnomusicology M108A.) Lecture, four hours; discussion, one hour (when scheduled). Survey of traditional and contemporary musical culture. P/NP or letter grading.

109. Chicana/Chicana Folklore. (4) Lecture, four hours. Examination of roots of Chicana/Chicana folklore in Mexican tradition and mid-19th century and development of Chicana/Chicana folklore to present day. P/NP or letter grading.

CM110. Chicana Feminism. (4) (Same as Gender Studies CM110A.) Lecture, four hours. Enforced requisites: English Composition 3 or 3H and Gender Studies 10. Examination of theories and practices of women who identify as Chicana feminist. Analysis of writings of Chicanas who do not identify as feminist but whose practices attend to gender inequities faced by Chicanas both within Chicana/Chicano community and dominant society. Attention to Anglo-European and Third World women. Concurrently scheduled with course CM214. P/NP or letter grading.
111. Chicana/Chicano and Latino/Latina Intellectual Traditions. (5) Lecture, five hours. General view of philosophical, cultural, and social thought as well as intellectual traditions in Americas. Roles of writers as intellectuals and cultural/political strategists, and as definers of (national) identity, social reality, and struggles of liberation. Letter grading.

113. Day of Dead Ritual. (4) Lecture, four hours; discussion, one hour (when scheduled). Introductions to philosophical roots and evolution of traditional celebratory and commemorative practices in indigenous and other Mexican cultures. Role of the Day of Dead as a site for political and social commentary. Letter grading.

113B. Origin and Evolution of Ritual Traditions in Mexico and Central America. (4) Lecture, four hours; discussion, one hour (when scheduled). Analytical overview of origin and evolution of cultural traditions of Chicano and Day of Dead, from pre-Hispanic to contemporary manifestations in Mexico and Central America. Exploration of how Aztec and Mayan astronomical rituals became foundation for Spanish domination and subjugation. Winter solstice became Christmas, spring equinox became celebration of Easter, and end of harvest became Todos los Santos. Examination of original purpose of sugar skull, piñata, parade, drama, and rituals as symbolic representations of economic, social, and political issues. Letter grading.

114. Chicanos in Film/Video. (5) Same as Film and Television M117.) Lectures/screenings, five hours; discussion, one hour. Goal is to gain nuanced understanding of Chicano/Chicano/a images and roles in Hollywood. Overview of U.S./Mexico and Central American images and roles in Hollywood from silent film period to contemporary period. Letter grading.

115. Musical Aesthetics in Los Angeles. (4) (Same as Musicology M115.) Lecture, four hours. Confronting aesthetics from classical perspective of art as intuition, examination on cross-cultural basis of diverse musical contexts within vast multicultural metropolitan landscape, with focus on popular music scenes, and connections to various musical networks and specific experiences of Chicano/Latino/a, African American, Asian, rock culture, Western art music tradition, and commercial music industry. Letter or P/NP grading.

116. Chicano/Latino Music in U.S. (5) (Same as Ethnomusicology M116.) Lecture, four hours; discussion, one hour. Historical and analytical examination of musical expression of Latino peoples who have inhabited present geographical boundaries of U.S. Letter or P/NP grading.

117. Chicana/Chicana Images in Mexican Film and Literature. (4) (Same as Film and Television M117.) Lecture, four hours. Preparation: adequate understanding of Spanish-language films without English subtitles. Understanding of the rich history, spanning more than 100 years, Mexican cinema has produced great variety of films that deal with Chicana/Chicano experience, like its U.S. counterpart. Mexican cinema as critical space of Chicana/chicana experience has been plagued by use of stereotypes that limit visual representation of Chicanas/Chicanos. Exploration of causes and effects for such obtuse cinematic representations and need for critical analysis of them. Letter grading.

118. Student-Initiated Retention and Outreach Issues in Higher Education. (4) (Same as African American Studies M118, American Indian Studies M118, and Asian American Studies M168.) Lecture, four hours. Exploration of issues in outreach and retention of students in higher education, especially through student-initiated programs, efforts, activities, and services, with focus on UCLA as case. May be repeated twice for credit. Letter grading.


121. Issues in Latina/Latina Poverty: Mexican and Central American Voices from Los Angeles. (4) (Same as Labor Studies M121 and Urban Planning M140.) Lecture, four hours. Examination of key issues (work, housing, and neighborhoods) in urban poverty, with particular focus on Mexican and Central American immigrants and poor communities. Exploration of major theoretical models that explain urban poverty and application of them in comparative context while exploring differences between Mexican and Central American communities. Focus on how policies and forces that help us understand lives of poor people in comparable context while looking at differences between two major Latino-origin populations in Los Angeles. Letter grading.

122. Planning Issues in Latina/Latina Communities: Preserving and Strengthening Community Assets in Mexican and Salvadoran Los Angeles. (4) (Same as Labor Studies M122 and Urban Planning M171.) Lecture, four hours. How community and economic development interact, role of assets in community development, and unique synergies and pitfalls that emerge or disappear from community development to their potential. How to strengthen and how to preserve community resources in Pico-Union neighborhood in Los Angeles. Research entails historical analysis, reviews, interviews, electronic asset mapping, web-based data processing and analysis, oral and written reports, and cyber-based research. Letter grading.

123. Applied Research Methods in Latina/Latina Communities. (4) (Same as Honors College M143.) Lecture, four hours. Overview of Mexican, Central American, and Latina/Latina immigration to U.S., examining social, political, and economic contexts out of which different waves of Latin American immigration have occurred. P/NP or letter grading.

124. Latino Immigration History and Politics. (4) (Same as Honors College M143.) Lecture, four hours. Overview of Mexican, Central American, and Latina/Latina immigration to U.S., examining social, political, and economic contexts out of which different waves of Latin American immigration have occurred. P/NP or letter grading.

125. U.S./Mexico Relations. (4) (Same as Labor Studies M125.) Lecture, four hours. Examination of complex, dynamic, and conflicted relationship between Mexico and U.S., using political economy approach to study of asymmetrical integration between advanced industrial economies and developing countries, P/NP or letter grading.


129. Field Research Methods in Labor and Work- place Studies. (5) Lecture, four hours; field studies, three hours. Designed for seniors/juniors. Examination of how social research is carried out in the field of labor and workplace studies, including qualitative research methods on roles of union and nonunion worker organizations in society and in improvement of quality of life for Latina/ Latino communities. Review and application of field research methods to labor organizations and workplace sites, especially participant observation, interview techniques, and grounded theory and other methods of data analysis. Letter grading.


131. Barrio Popular Culture. (4) Lecture, three hours. Preparation: students must be grounded in oral history and or be familiar with Chicana/chican culture for critical analysis and policy recommendations. Letter grading.

132. Chicana/a Lesbian Literature. (4) (Same as Gender Studies M133 and Lesbian, Gay, Bisexual, Transgender, and Queer Studies M132.) Lecture, four hours; discussion, one hour (when scheduled). Investigation through history, popular culture, and mass media of bilingual and bicultural identities produced by geographical and cultural landscapes between Mexico and U.S. Letter or P/NP grading.

133. Chicana Lesbian Literature. (4) (Same as Gender Studies M133 and Lesbian, Gay, Bisexual, Transgender, and Queer Studies M133.) Lecture, four hours. Examination of intersection of radical First and Third World feminist politics, lesbian sexuality and its relationship to Chicana/a identity, representation of lesbianism in Chicana literature, meaning of familia in Chicana lesbian lives, and impact of Chicana lesbian theory on Chicana/chicana studies. Letter grading.

134SL. Engaging Immigrants and Their Families. (5) (Same as Community Engagement and Social Change M134SL and Labor Studies M134SL.) Lecture, two hours; discussion, two hours; field place- ment, two hours. Survey of immigrant and multicultural landscape in Los Angeles—truly global city acting in part to buffer, settle, and incorporate immigrants in daily life. Focus on civil society to explore multiple facilitation and intervention methods in multiple communities across Los Angeles basin. Service learning partnerships focus on organizations addressing immigration concerns. Letter grading.

135. Bilingual Writing Workshop. (4) (Formerly known as Chicana/Chicano Workshop M135C.) Seminar, four hours. Limited to juniors/seniors. Writing sample required; access to course webpage mandatory; need not be bilingual to enroll. Technical instruction, analysis, and theoretical discussion of bilingual creative expression through genre of short fiction. Bilingualism as both politics and aesthetics to be central theme. Discussion and analysis of Chicana/Chicano writing. Letter grading.
M140B. Diasporic Nonfiction: Media Engagements with Memory and Displacement I. (4) [Same as African American Studies M170B.] Seminar, three hours. Enforced requisite: course M140A. Students complete 20- to 30-minute video projects about issues or experiences central to everyday lives of communities of diasporic peoples. They learn to propose, record, edit, and distribute one socially engaged nonfiction video and draw on their experiences from course M140A in writing nonfiction articles, attending public performances, interviewing, and recording everyday life. P/np or letter grading.

C141. Chicana and Latin American Women's Narrative. (4) [Same as Ethnic Studies M149B.] Examination of preparation, writing knowledge of Spanish (level 4), American comparison, and discussion of narrative literary production of U.S. Chicana writers and their Latin American counterparts in English and Spanish, with particular focus on how each group deals with gender, ethnic, and class issues. Concurrently scheduled with course C251L. Letter grading.

142. Mesoamerican Literatures. (4) Lecture, four hours. Preparation read knowledge of Spanish (level 4). Survey of premises of Mesoamerican literatures, including myths, lyrics, poetry, religious celebrations, rituals, and drama, specifically of Aztec and Mayan peoples prior to European contact. Letter grading.

143. Mestizaje: History of Diverse Racial/Cultural Roots of Mexico. (4) Lecture, four hours; discussion, one hour (when scheduled). Historical examination of diverse roots of Mexican and Chicano culture. Utilizing theoretical frameworks of mestizaje, ActdÃn, indigenismo, La Raza CÃsmica, and the tercera raiz, examination of some important groups who have contributed to formation of Mexican nation will be explored. Development of race relations in Mexico during colonial period, with focus on analysis of Nahua (Aztecs), Mixtecs, Spaniards, and African slave population. Analysis of pattern that defines Chicano Norteno identity during national period, specifically examination of migration and adaptation experiences of Chinese, Japanese, and Punjabi-Indian immigrants. P/np or letter grading.

143B. Afro-Latino/o Experience(s) in US. (4) Seminar, four hours. Examination of seminal works of Latino/o/a theater artists with particular focus on creating and embodying personal histories in performance. Features dramatic plays, autobiographical texts, and ensemble devised works that reflect changing nature of Latino/o/x cultural landscape. Involves analyses of and participation in collaborative group performance, physical storytelling, and voice/speech exercises designed to free creative voice. Examination of performance of cultural expression, political tool, and personal identity. P/np or letter grading.

M144. Women's Movement in Latin America. (4) [Same as Gender Studies M144 and Labor Studies M144.] Lecture, four hours. Course on women's movements and feminism in Latin America and Caribbean to examine diverse social movements and locations from which women have launched political and gender struggles. Discussion of forms of feminism and women's movements in Latin America that emerged out of indigenous rights movements, environmental struggles, labor movements, Christian-based communities, peasant and rural organizing, and new social movements that are gender, sexual, ethnic, feminist, and human rights. Through comparative study of women's movements in diversity of political systems as well as national and transnational arenas, students gain understanding of historical contexts and political conditions that give rise to women's resistance, as well as major debates in field of study. P/np or letter grading.

M145A. Introduction to Chicano Literature: Literature to 1965. (4) [Same as Spanish M145A.] Lecture, three hours. Enforced requisite: Spanish 25 or 27. Introduction to texts representative of Chicano literary heritage. Sampling of genres, as well as historical and geographic composition of Chicano literature and Chicana novel, and Chicana solidarity fiction. Texts examined within their own geographic, cultural, and historical contexts, as well as within history of narrative forms. P/np or letter grading.

CM147. Transnational Women's Organizing in Americas. (4) [Same as Gender Studies M147C.] Lecture, four hours. Feminism and transnational organizing. Examination of gender and race as central to processes of globalization and essential to economic and political struggles encompassed in transnational power relations. Explorations of race and gender influence global economic policies and impact local actors and their communities. In time when people, capital, cultures, and technologies cross national boundaries with growing frequency, discussion of process of accelerated globalized has been linked to feminization of labor and migration, environmental degradation, questions of diaspora, sexuality, and cultural displacement, as well as growing global militarization. Problems and issues created by globalization and cultural, social, and political responses envisioned by transnational organizing. Concurrently scheduled with course C215. P/np or letter grading.


149. Gendered Politics: Chicana/Latina Political Participation. (4) Lecture, four hours. Examination of Chicanas and Latinos as participants, organizers, and leaders in communities, workplaces, labor unions, and government. Surveys topics in politics and as policymakers in appointed and elected offices. Letter grading.

150. Affirmative Action: History and Politics. (4) Lecture, four hours; discussion, one hour (when scheduled). Historical examination of political economic context in which affirmative action policies and programs were conceived and implemented. Review of implications for Chicano, Latino and other communities. Specific analysis of university admissions, hiring and contracting practices, and state institutions. Letter grading.

153A. Central Americans in U.S. (4) (Formerly numbered 153.) Lecture, four hours. Interdisciplinary survey of social, historical, political, economic, educational, and cultural experiences of Central American immigrants and their children in U.S. Introduction to several contemporary experiences and issues in U.S. Central American communities. With focus mostly on Guatemalan, Salvadoran, and Nicaraguan immigrants, exploration of social structures that constrain individuals, as well as strategies and behaviors immigrants and their children adopt to establish their presence and incorporate into U.S. society. How Central American identity has been constructed and how this identity intersects with race, gender, and legal status. P/NP or letter grading.

153B. Central American Racial Constructions. (4) Lecture, four hours. Interdisciplinary, transhistorical, and transnational exploration of indigeneity, Afro-indigeneity, and Blackness, mestizaje, laizaliza- tion, and other racialized constructions among peoples of and in Central America, and how these groups redefine their racial identification and disidentifications in and/or in relation to U.S. P/NP or letter grading.

153C. Migrating U.S./Central American Cultural Production. (4) Lecture, four hours. Exploration of culture making through memory, legends, counter-narratives, signs, symbols, foodways, and sounds as migratory and transnational resources. Lectures on transnational emotional, translocal, and as part of U.S. Central American, Latina/Latino, and migrant experience within, across, and among cultural groups. P/NP or letter grading.

153D. U.S. Central American Narratives. (4) Lecture, four hours. Examination of textual narratives and genres that emerged or were actively deployed from Central America beginning with civil wars of late 1960s into late 1980s and beyond concerning the nation-state as narratives and subjectivities in exile. As part of stories of immigrants, these narratives contribute to making of U.S. Central American diasporas, and these communities making home in some other place than original or re-imagined homeland. P/NP or letter grading.


M155A. Latinos in U.S. (4) (Same as Sociology M155.) Lecture, three hours; discussion, one hour. Designed for juniors/seniors. Exploration of history and social construction of Latinos in Los Angeles and nationals, with particular emphasis on their location in larger social structure and on comparisons with other minority groups. Topics include migration, family, education, and work. P/NP or letter grading.

M155B. U.S. Latino Politics. (5) (Formerly numbered 155B.) (Same as Political Science M181B) Lecture, four hours; discussion, one hour (when scheduled). Examination of the role of Latinos in the political system. Topics include historical analysis of Latino immigration and migration; civil rights movements; increases in citizenship, registration, and voting in 1980s and 1990s; new wave of anti-immigrant attitudes; Development, Relief, and Education for Alien Minors (DREAM) Act and subsequent DREAMer movement; and response by Latinos today, with discussion of vote in recent presidential elections. P/NP or letter grading.

M156A. Immigrant Rights, Labor, and Higher Education. (4) (Same as Asian American Studies M166A and Labor Studies M166A) Lecture, three hours; discussion, one hour. New immigrant rights movement, with particular attention to labor and higher education. Overview of history of immigrant rights movement and examination of development of coalition efforts between labor movement and immigrant rights movement nationally and locally. Special focus on issue of standing of change over time in Mexican community by inquiry into major formative historical and policy issues affecting community. Within framework of domination and resistance, discussion deals with social structure, economy, labor, culture, political organization, conflict, and ideologies related to historical events of significance occurring both in U.S. and Mexico. Lectures, special presentations, reading assignments, written examinations, library and/or field research, and submission of paper. P/NP or letter grading.

M156B. Research on Immigration Rights, Labor, and Higher Education. (4) (Same as Asian American Studies M166B and Labor Studies M166B) Seminar, two hours. Requisite: course M156A. Expansion of research methods learned in M156A involving oral histories, research on immigration/labor/higher education, and evaluation of legislation and legal issues impacting undocumented students. Letter grading.

M156C. Research on Immigrant Students and Higher Education. (4) (Same as Asian American Studies M166C and Labor Studies M166C) Seminar, three hours. Enforced requisites: courses M156A, M156B. Expansion of research conducted by students in courses M156A and M156B involving oral histories, research on immigration/labor/higher education, and evaluation of legislation and legal issues impacting undocumented students. Letter grading.

M156D. Research on Immigration Rights, Labor, and Higher Education. (4) (Same as Asian American Studies M166D and Labor Studies M166D) Seminar, four hours. Enforced requisites: courses M156A, M156B, M156C. Students work closely with instructors to collectively develop student publication on immigrant students in higher education. P/NP or letter grading.

M156E. Research on Immigration Rights, Labor, and Higher Education. (4) (Same as Asian American Studies M166E and Labor Studies M166E) Seminar, five hours. Requisite: course M156A. Comparative analysis with other immigration rights movements, community autonomy, police brutality, political inclusion, cultural recovery, racism, sexism, and class exploitation. Investigation of diverse ideologies, debates, and legacies of Chicano Movement through analysis of Chicana/Chicano/Chicana, as well as their communities making home in other place than original or re-imagined homeland. P/NP or letter grading.

M156F. Chicana Historiography. (4) (Same as Gender Studies M157 and History M151D) Lecture, four hours. Examination of Chicana historiography, looking closely at how practice of writing of history has placed Chicanas in and out of power. Using Chicana feminist approaches to study of history, revisiting of specific historical periods and moments such as Spanish Conquest, Mexican Period, American Conquest, and Mexican Revolution, Movement to excavate untold stories about women’s participation in and contribution to making of Chicana and Chicano history. P/NP or letter grading.

M159A. History of Chicano Peoples. (4) (Same as History M151A) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Survey lecture course on historical development of Mexican (Chicano) community and people of Mexican descent in U.S. from 17th, 18th, and 19th centuries, with special focus on labor and politics. Provides integrated understanding of change over time in Mexican community by inquiry into major formative historical and policy issues affecting this community. Social structure, economy, labor, culture, political organization, conflict, and international relations. Emphasis on social forces, class analysis, social, economic, and political background, history, and resistance. Developments related to historical events of significance occurring both in U.S. and Mexico. Lectures, special presentations, reading assignments, written examinations, library and/or field research, and submission of paper. P/NP or letter grading.

M159B. History of Chicano Peoples. (4) (Same as History M151B) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Survey lecture course on historical development of Mexican (Chicano) community and people of Mexican descent in U.S. through 20th century, with special focus on labor and politics. Provides integrated understanding of change over time in Mexican community by inquiry into major formative historical and policy issues affecting this community. Social structure, economy, labor, culture, political organization, conflict, and international relations. Emphasis on social forces, class analysis, social, economic, and political background, history, and resistance. Developments related to historical events of significance occurring both in U.S. and Mexico. Lectures, special presentations, reading assignments, written examinations, library and/or field research, and submission of paper. P/NP or letter grading.

M162A-M162B-M162C. Advanced Nahuatl. (4—4—4) (Same as Indigenous Languages of the Americas M115A-M115B-M115C and International and Area Studies M115A-M115B-M115C) Lecture, four hours. Designed for advanced students. Lecture course with audiovisual components, special presentations, reading assignments, and individualized tutoring. Enrollment restricted to students who have passed course M115A is requisite to M115B, which is requisite to M115C. Taught primarily in Nahuatl. Examination of Nahuatl (Aztec) language of central Mexico at intermediate level. Coverage of Nahautl grammar, with equal emphasis on reading, writing, conversation, and comprehension. P/NP or letter grading.


M164SL. Oral History: Latino New Immigrant Youth. (Seminar, three hours; tutoring, three hours. Theory, research, and practice in oral history, together with background information on Mexican, Central American, and Latino immigration. Emphasis on oral history and testimonio methods. P/NP or letter grading.

M157SL. Taking It to Street: Spanish in Community. (Seminar, three hours; fieldwork, four hours. Enforced requisite: Spanish 25 or 27. Service learning course to give students opportunity to use cultural and linguistic knowledge acquired in Spanish classes in real-world settings. Students required to spend minimum of eight to 10 hours per week at agreed on site in Latino community. P/NP or letter grading.

M168A. Latinos: Print Media. (4) Lecture, four hours. Examination of systemic (mis)representations of Latinos by print media sources (Los Angeles Times) by means of critical discourse analysis and metaphorical analysis of concepts and theories of racism in language in this context. Student projects range from immigration to education and crime to culture. Letter grading.
there has been increase of various guises of anti-

M174A-M174B. Restoring Civility: Understanding, Using, and Resolving Conflict. (4-4) [Same as Education M145A-M145B.] Lecture, one hour; discussion, three hours. Course M174A is enforced requisite to M174B. Designed for students who want to learn prin-

ciples of dialogue and mediation, as alternatives to vi-

M174C. Alternatives to Violence: Peer Mediation in Public Schools. (4) [Same as Education M145C.] Lecture, one hour; fieldwork, three hours. Requisites: courses M174A, M174B. Limited to juniors/seniors. This course empowers and enables teachers to help students in partner schools to develop peer medi-

dation programs to be sustained by future UCLA stu-

dents. Work at partner school sites and demonstration of firm grasp of concepts of conflict resolution through weekly reflective journals, discussion through bi-

M175. Chicana Art and Artists. (4) [Same as Art M164 and World Arts and Cultures M128.] Lecture, four hours. Survey of Chicana Art and Art History. Examina-

tion of Chicana aesthetic. Chicana artists have developed unique experience and identity as artists and Chicanas. Letter grading.

176. Globalization and Transnationalism: Local Histori-

cal Narratives and Global Context. (4) [Same as Art M169 and World Arts and Cultures M134.] Lecture, four hours. Exploration of narratives, films, readings, and guest speakers. Exploration of issue, its origins of modern habits and customs and, more im-

177. Humor as Social Control. (4) [Same as Labor M179.] Lecture, four hours. Hegemonic humor directs laughter of more powerful people against those with less power. In this case laughter becomes weapon used against Latinos and immigrants. With rise of Latinos in last decade, there has been increase of various guises of anti-

178. Latinos/Latinas and Law: Comparative and His-

torical Perspectives. (4) [Same as History M151C.] Lecture, three hours; discussion, one hour. Historical perspective on evolution of law and legal education in Chicana/Latino position within U.S. society. Letter grading.

179. Language Politics and Policies in U.S.: Compar-

ative History. (4) [Formerly numbered CM179.] Lecture, four hours. Historical overview of national and institutional language policies, especially schooling, in U.S. as context to understanding social, legal, and po-

tical constraints on bilingualism. Definitions and de-

velopment of language policy and planning, history of general education for English learners. Comparison of di-

temocratic culture. Focus on urban experiences of sub-

180. Chicana/Chicano Schooling and Community Activ-

ism. (4) Seminar, four hours. Overview of Chi-

canal and Chicano education in U.S., with special emphasis on some important historical events that exemplify struggle for educational justice and equity that affected Chicana/Chicano education—Mendez versus Westminster (1947) desegregation case and 1968 school high Chicana/Chicano student walkouts. Through oral history projects, documentation of legacy of Sylvia Mendez, who experienced segrega-

tion in one Mexican school in 1940s, Sal Castro, Chi-

cano teacher and central figure in 1968 walkouts, and the Chicano Youth Leadership Conference (CYLC). Exam-

ination of how historical, social, and political forces have impacted Chicana/Chicano educational experi-

cences. P/NP or letter grade.

181. History of Chicana/Chicana Los Angeles, 20th Cen-

tury. (4) [Same as History M185.] Lecture, four hours. History of Mexican American people in 20th-century Los Angeles. Read-
ing, lectures, discussions, exploration of multicultural identity among Mexican Americans in Los Angeles and their significance to emergence of multicultural metropolis. Letter grading.

CM162. Understanding Whiteness in American History and Culture. (4) [Same as History M151C.] Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. History, con-

struction, and representation of whiteness in American society. Readings and discussions trace evolution of white identity and explore its significance to historical construction of race class in American history. Con-

currently scheduled with course C256. Letter grading.

M183. History of Los Angeles. (4) [Same as History M155C.] Lecture, four hours. Survey of Chicana/Latina history, three hours, one hour (when scheduled). Designed for juniors/seniors. So-

cial, economic, cultural, and political development of Los Angeles and its environs from time of its founding to present. Emphasis on the roles of area, changing physical environment, various interpreta-

tions of city, and Los Angeles' place among American urban centers. P/NP or letter grading.

184. History of U.S./Mexican Borderlands. (4) [Same as History M184 and World Arts and Cultures M128.] Lecture, four hours. Overview of history of U.S./Mexican Borderlands from prehistoric to present. Emphasis on diverse peoples of area, their presence in Americas, with emphasis on Meso-

M185. Whose Monument Where: Course on Public Art. (4) [Same as Art M185 and World Arts and Cul-

tures M126.] Lecture, four hours. Recommended corequisite: course M186A, M186B, or M186C. Exam-

ination of public monuments in U.S. as basis for cul-

186A. Beyond Mexican Mural: Beginning Mural-

ism and Community Development. (4) [Same as Art M186A and World Arts and Cultures M125A.] Studio/lec-

ture, four hours. Corequisite: course M186AL. In-

vestigation of muralism as method of community edu-

cation, development, and empowerment. Exploration of issues through development of large-scale collabora-

tive digitally generated murals and/or painting projects. In Progress (M184A) and letter (M184B) have impacted Chicana/Chicano educational experi-

ences and their significance to Chicana/Chicana identity construction. Letter grading.

186AL-M186BL-M186CL. Beyond Mexican Mural: Muralism and Community Development. (4-4-2) [Same as Art M186AL-M186BL-M186CL and World Arts and Cultures M125AL-M125BL-M125CL] Course M186AL is requisite to M186BL, which is requisite to M186CL. Introduction to large-scale collaborative digital art studio housed at Social and Public Art Resource Center in Venice, CA, where students work in community-based setting. Open to students during scheduled hours with laboratory. Credit supervised by students independently and in collaborative teams research, design, and work with community participants. P/NP or letter grading.

M186AL-M186BL-M186CL. Beyond Mexican Mural: Muralism and Community Development. (4-4-2) [Same as Art M186AL-M186BL-M186CL and World Arts and Cultures M125AL-M125BL-M125CL] Course M186AL is requisite to M186BL, which is requisite to M186CL. Introduction to large-scale collaborative digital art studio housed at Social and Public Art Resource Center in Venice, CA, where students work in community-based setting. Open to students during scheduled hours with laboratory. Credit supervised by students independently and in collaborative teams research, design, and produce large-scale painted and digitally generated murals to be placed in community settings. P/NP or letter grading.

M186AL-M186BL-M186CL. Beyond Mexican Mural: Muralism and Community Development. (4-4-2) [Same as Art M186AL-M186BL-M186CL and World Arts and Cultures M125AL-M125BL-M125CL] Course M186AL is requisite to M186BL, which is requisite to M186CL. Introduction to large-scale collaborative digital art studio housed at Social and Public Art Resource Center in Venice, CA, where students work in community-based setting. Open to students during scheduled hours with laboratory. Credit supervised by students independently and in collaborative teams research, design, and produce large-scale painted and digitally generated murals to be placed in community settings. P/NP or letter grading.
M186B. Beyond Mexican Mural: Intermediate Murals and Community Development. (4) Same as Art M186B and World Arts and Cultures M125B.) Studio/lecture, four hours. Requisites: courses M186A, M186B, Corequisite: course M186BL. Continuation of investigation of muralism as method of community education, development, and empowerment. Exploration of issues through development of large-scale collaborative digitally created image and/or painting for placement in community. Students research, design, and work with community participants. Continuation of project, group instruction, documentation, and dedication, with work on more advanced independent projects. P/NP or letter grading.

M186C. Beyond Mexican Mural: Advanced Muralism and Community Development. (4) Same as Art M186C and World Arts and Cultures M125C.) Studio/lecture, six hours. Requisites: courses M186B, M186B. Corequisite: course M186CL. Continuation of investigation of muralism as method of community education, development, and empowerment. Exploration of issues through development of large-scale collaborative digitally created image and/or painting for placement in community. Students research, design, and work with community participants. Continuation of project, group instruction, documentation, and dedication, with work on more advanced independent projects. P/NP or letter grading.


M187B. Colonial Latin American Art, (4) Same as Art History CM141.) Lecture, three hours; discussion, one hour (when scheduled). Art and architecture of colonial Americas from 16th to 18th century. P/NP or letter grading.

M187C. Aztec Art, (4) Lecture, four hours. Introduction to Aztecs through analysis of art in different media including sculpture, featherworks, polychrome pottery, manuscript art, and architecture. Readings in ethnographic and historical sources compiled in colonial period by indigenous scribes and Spanish officials (friars, soldiers, chroniclers, and administrators). Study of Aztecs, their art, and major topics discussed in existing scholarship, including calendar, foundational and creation myths, stories of migration, human sacrifice, rulership, warfare, gender, religion, philosophy, art and architecture. Assessment of validity of scholarly assumptions about Aztecs, their art, and society in light of available sources. P/NP or letter grading.

188. Special Courses in Chicana and Chicano Studies. (4) Seminar, three hours. Some sections may require prior coursework. Departmentally sponsored experimental or temporary courses, such as those taught by visiting faculty members. May be repeated for credit, 1 to 4 units. P/NP or letter grading.

188SA. Individual Studies for USIE Facilitators. (1) Tutorial, to be arranged. Enforced corequisite: Honors College 101E. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor to discuss selected USIE seminar topic, conduct preparatory research, and begin preparation of syllabus. Individual contract with faculty mentor required. May not be repeated. Letter grading.

188SB. Individual Studies for USIE Facilitators. (2) Tutorial, to be arranged. Enforced corequisite: course 188SA. Enforced corequisite: Honors College 101E. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor to finalize course syllabus. Individual contract with faculty mentor required. May not be repeated. Letter grading.

188SC. Individual Studies for USIE Facilitators. (2) Tutorial, to be arranged. Enforced corequisite: course 188SB. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor while facilitating USIE BBS course. Individual contract with faculty mentor required. May not be repeated. Letter grading.

188CH. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to upper-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. P/NP or letter grading.

190. Research Colloquia in Chicana and Chicano Studies. (2) Seminar, two hours. Designed to bring together students undertaking supervised tutorial research or seminar projects with one or more faculty members to present reports, discuss research methodologies, share findings, and provide feedback on each other's work. Culminates in public seminar of Chicana/o Chicano Studies. Students expected to present polished position papers on their research. May be repeated for credit. P/NP grading.


192A. Undergraduate Practicum in Chicana and Chicano Studies. (4) Seminar, four hours. Limited to juniors/seniors. Training and supervised practicum for advanced undergraduate students who assist in preparation of materials and/or development of innovative programs or courses of study under guidance of faculty members. Small group settings or one-on-one setting. May not be applied toward departmental major or minor elective requirements. May be repeated for credit. P/NP or letter grading.

192B. Readings/Speaker Series Seminars: Chicana and Chicano Studies. (4) Seminar, four hours. Limited to undergraduate Colloquia Series students. Reading of journal articles associated with speaker topics to enrich colloquia discussions. May not be applied toward departmental major or minor elective requirements. May be repeated for credit. P/NP or letter grading.

193. Readings/Speaker Series Seminars: Chicana and Chicano Studies. (4) Seminar, four hours. Limited to undergraduate Colloquia Series students. Reading of journal articles associated with speaker topics to enrich colloquia discussions. May not be applied toward departmental major or minor elective requirements. May be repeated for credit. P/NP or letter grading.

194. Research Group Seminars: Chicana and Chicano Studies. (2) Seminar, one hour. Designed for undergraduate students who are part of research group. Discussion of current literature in field or of research of faculty members or students. Use of specific research method on selected topic. May be repeated for credit with topic change. P/NP grading.

195. Community Internships in Chicana and Chicano Studies. (4) Tutorial, two hours; field placement, eight hours. Limited to juniors/seniors. Internship in supervised setting in community agency or business. Students meet on regular basis with instructor and provide periodic reports of their experience. May be repeated for credit. Individual contract with supervising faculty required. P/NP or letter grading. 

196. Research Apprenticeship in Chicana and Chicanostudies. (2 to 4) Tutorial, four hours. May be repeated under different contract. P/NP grading.

197. Individual Studies in Chicana and Chicano Studies. (2 to 4) Tutorial, four hours. Requisites: courses 10A, 10B. Limited to juniors/seniors. Individual intensive study, with scheduled meetings to be arranged between faculty member and student. Assemble reading and tangible evidence of mastery of subject matter required. May be repeated for maximum of 8 units. Individual contract required. P/NP or letter grading.

197C. Individual Capstone Studies. (2) Tutorial, one hour. Designed to be repeated for credit. Must be taken in conjunction with one upper-division departmental course. May not be repeated for credit. Individual contract required. Letter grading.

198A-198B-198C. Honors Research in Chicana and Chicano Studies. (2 each) Tutorial, one hour. Limited to junior/senior honors program students. May be repeated for credit. Individual contract required. Letter grading. 198A. Thesis Conceptualization. Requisites: courses 10A, 10B, 101, and 89 or 189. Conceptualization and formulation of project in Fall Quarter under direction of faculty. May not be applied toward departmental capstone project guidelines. Must be taken in conjunction with one upper-division departmental course. May not be repeated for credit. Individual contract required. Letter grading.

199. Directed Research or Senior Project in Chicana and Chicano Studies. (2 to 4) Tutorial, two hours. Limited to juniors/seniors. Supervised individual research or investigation under guidance of faculty member. Culmination of major project required. May be repeated for credit. Individual contract required. P/NP or letter grading.

Graduate Courses

200. Theoretical Paradigms in Chicana and Chicanostudies. (4) Seminar, three hours. Limited to graduate students. Examination of several approaches and important theoretical frameworks in field of Chicana and Chicano studies. Exploration of changes that have taken place around four key theoretical areas—community, migration, nationhood, inequality studies, and gender and gender studies. S/U or letter grading.

201. Activist Scholarship and Intersectional Methodologies Seminar. (4) Seminar, three hours. Limited to graduate students. Exploration of four critical epistemologies, or schools of thought, that employ intersectional methodologies as basis for social action re-
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202. Qualitative Methods in Study of Chicanas/Chicanos and Latinas/Latinos. (4) Seminar, three hours. Limited to graduate students. Methods course that takes students through an empirical research process. Students work in small groups on a research proposal and empirical study leading to the production of a research paper. S/U or letter grading.

203. Feminist Literatures of the Americas. (4) Lecture, four hours. Crosslisted with English C232A. Limited to graduate students. A survey of the work of Hispanic American women writers, including their work in Chicana/Chicano communities and the constraints they faced in their work. S/U or letter grading.


220. Service Learning: Theory and Practice. (4) Seminar, three hours. Limited to graduate students. Analysis of approaches and the theoretical underpinning of service learning and exploration of ways in which service learning can be utilized in academic disciplines (second and foreign language instruction, education, ethnic studies, Latinx studies, women’s studies, public health, literature, public art, political science, etc.). Creation of research proposal for use of service learning in one course (real or hypothetical) in academic discipline of student’s choice. S/U or letter grading.

231. Community Cultural Development in Public Art. From a Global to Local, Global to Local. (4) Seminar, three hours; laboratory, one hour. Designed for graduate students. Artistic approaches to transformations of local and global communities through aesthetic practices, including the use of art to create community, to understand and shape local communities. S/U or letter grading.

232. Cultural Representations in Americas. (4) Seminar, three hours. Limited to graduate students. Survey of range of qualitative and quantitative communication methods and findings regarding Chicana/Chicano and Latina/Latino topics for all media types in both English and Spanish. Critical evaluation of research findings across this expansive field and design of complex research problems. S/U or letter grading.

251. Chicana and Latin American Women’s Narrative. (4) Lecture, four hours. Preparation: reading knowledge of Spanish (level 4). Analyses, comparisons, and discussion of narrative literary production of U.S. Chicana writers and their Latin American counterparts in English and Spanish. Focus will be on how each group deals with gender, ethnic, and class issues. Concurrently scheduled with course C141. Letter grading.

252. Cultural Representations in Americas. (4) Seminar, three hours. Analysis of Latina/Latino and Latin American fictional and nonfictional narratives, with emphasis on gender issues, diasporas, and globalization. Exploration of conceptual frameworks and formal analytical perspectives and several conceptual frameworks—cultural studies, postcolonial studies, neoliberalism, intersectionality, and feminist theories. Study of these cultural productions as expression of intersectionalities and differences among Latina/Latino and Latin American cultural workers, as well as among diverse populations and changing experiences their works refer to. S/U or letter grading.

253. Third Muse of Chicana Theory. (4) Seminar, three hours. Chicana lesbian feminist theory in its multiple and historical manifestations, beginning in 17th century with early proto-feminist work of Sor Juana Inés de la Cruz, being created in a world that known to first feminist of Americas. Exploration of Sor Juana’s feminist legacy in 20th-century Chicana lesbian and Chicana feminist theorists and scholars, such as Gloria Anzaldúa, Emma Pérez, Chela Sandoval, Norma Alarcón, and Alicia Arríoz. Discussion of foundational theoretical concepts such as Anzaldúa’s foundational concepts of mundza, niña, mestiza, muxe, and cono-cimiento; Pérez’s stío y lengua and decolonial imaginary; Sandoval’s methodology of oppressed, differential consciousness, and hermeneutics of love; and Arríoz’s decolonial queer mestizaje. How to apply several of these theories in decolonization of one revered cultural icon, la Virgen de Guadalupe, S/U or letter grading.


255. Mass Media Research Methods. (4) Seminar, three hours. Limited to graduate students. Survey of range of qualitative and quantitative communication methods and findings regarding Chicana/Chicano and Latina/Latina topics for all media types in both English and Spanish. Critical evaluation of research findings across this expansive field and design of complex research problems. S/U or letter grading.

256. Understanding Whiteness in American History and Culture. (4) Lecture, three hours; discussion, one hour. Limited to graduate students. Study of the meaning of power and privilege in the context of one social practice that constructs discriminatory hierarchies in interpersonal settings and mass media. With goal of developing set of principled methods to investigate its manifestations, reading of outstanding academic contributions across history of its social function and power, development of classification of types and settings of political humor, and critical evaluation of representations in mass media of its nature. S/U or letter grading.
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259. Critical Discourse Analytic Methods. (4) Seminar, three hours. Limited to departmental graduate students. Two critical discourse analytic (CDA) methods taught to document language of public figures. Students team employ one method (conceptual metaphor analysis or discourse historical approach) to analyze actual public official's own discourse surrounding one controversial issue. Empirical study of discourses that are based on independently developed research enterprises can be valuable tool for variety of graduate student research. S/U or letter grading.

274. Language Politics and Policies in U.S.: Comparative Perspective. (4) Lecture, four hours. Historical overview of national and institutional language policies, especially schooling, in U.S. as context to understanding social, legal, and political constraints on bilingualism. Definitions and development of language policy and planning, history of general and educational language policies in U.S., demographic profile of language diversity, and current language and educational policy issues in U.S. Comparisons with selected international case studies. Concurrently scheduled with course C179. S/U or letter grading.


277. Latino Social Policy. (4) Lecture, three hours; discussion, one hour (when scheduled). Examination of social welfare of Latinos (Chicanos, Puerto Ricans, and Cubans) in U.S. through assessment and critical analysis of social policy issues affecting them. Survey of social, economic, cultural, and political circumstances affecting ability of Latinos to access public benefits and human services. Concurrently scheduled with course CM177. Letter grading.

279. Globalization and Transnationalism. (4) Seminar, three hours. Interdisciplinary seminar that integrates political-economic, historical-sociological, and anthropological-cultural perspectives to help students develop critical political-economic analysis of interplay between globalization (of flows of people, material goods, information, and political-cultural influences) and localized transnational dynamics that together are giving meaning and constructing new social identities and strategies for struggle throughout world. S/U or letter grading.

280. Urban Social Inequality. (4) Seminar, three hours. Examination of several key social and urban inequalities in U.S. Survey of three key contemporary issues of inequality primarily from sociology and urban planning/studies: income distribution (poverty), work and employment (labor), and neighborhoods (space/ geography). Through wide range of methods, approaches, and theoretical frameworks examined, exposure to key research on inequality. S/U or letter grading.

281. Central American Migration and Integration. (4) Seminar, three hours. Through empirical research cycle and informed with relevant theoretical frameworks, students develop research questions based on migration and integration experiences of Central American immigrants in greater Los Angeles area. Students conduct qualitative research, analyze original data, and write final papers that contextualize findings within existing social scientific literature. S/U or letter grading.

282. Chicana/Chicano Legal History. (4) Seminar, three hours. Legal history of Chicanas/Chicanos in U.S. from mid-19th century to present, with emphasis on critical race theory. Examination of landmark legislation and key appellate decisions that have impacted Chicano/Latino community. Topics include critical race theory, Treaty of Guadalupe-Hidalgo, legal construction of Mexican American racial identity, historic educational segregation, contemporary educational issues, jury rights, Chicano movement, and undocumented immigration. S/U or letter grading.

288. Chicana/Chicano Literature. (4) (Same as English M261.) Seminar, three hours. Intensive research and study of major themes, authors, and issues in Chicanas/Chicano literature and culture. Examination of political, aesthetic, economic, and cultural contexts that emerge in Chicana/Chicano discourse; limits of investigation set by individual instructor. May be repeated for credit. S/U or letter grading.

291. Variable Topics Research Seminars: Chicana and Chicano Studies. (4) Seminar, three hours. Limited to graduate students. Research seminar organized around readings and engaged discussion of critical topic of interest in field. Exploring issues, its theoretical implication for field, and practical implications for communities. Topics vary according to participating faculty members. Final research project required. May be repeated for credit with consent of director of graduate studies. S/U or letter grading.

375. Teaching Apprentice Practicum. (1 to 4) Seminar, to be arranged. Preparation: apprentice personnel employment as teaching assistant, associate, or fellow. Teaching apprenticeship under active guidance and supervision of regular faculty member responsible for curriculum and instruction at UCLA. May be repeated for credit. S/U grading.

495. Learner-Centered Teaching in Chicana/Chicana Studies. (4) Seminar, four hours. Designed for graduate students and required of all new department teaching apprentices. Interactive forum for discussing learner-centered teaching in Chicana/Chicana studies. Exploration of diverse classroom strategies and pedagogical techniques specific to interdisciplinary field. Topics include preparing for discussion sections, promoting discussion among students, using class websites, office hours, grading, and campus resources. May be repeated once for credit. S/U grading.

595. Research and Preparation for MA Thesis. (4 to 12) (Formerly numbered S98.) Tutorial, to be arranged. Limited to departmental graduate students who have completed all MA coursework requirements. Research for and preparation of MA thesis under direction of thesis committee chair. May not be applied toward MA degree requirements. May be repeated for maximum of 12 units. S/U grading.

596. Directed Individual Study or Research. (4 to 12) Tutorial, to be arranged. Directed individual research and study in area related to Chicana/Chicana studies or subjects not offered as regular courses, arranged individually by student and instructor. May be repeated for maximum of 12 units. S/U or letter grading.

597. Preparation for PhD Qualifying Examinations. (2 to 12) Tutorial, to be arranged. Limited to departmental graduate students. Reading and preparation for PhD qualifying examinations. Mandatory and supplemental reading lists prepared by student advisory committee. May be repeated for maximum of 12 units. S/U grading.

599. Research for PhD Dissertation. (4 to 12) Tutorial, to be arranged. Limited to PhD students who have passed qualifying examinations. Research for and preparation of PhD dissertation under direction of dissertation committee chair. May not be applied toward PhD degree requirements. May be repeated for maximum of 8 units. S/U grading.

CIVIC ENGAGEMENT

See Community Engagement and Social Change

CIVIL AND ENVIRONMENTAL ENGINEERING

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Scope and Objectives

The Department of Civil and Environmental Engineering programs at UCLA include civil engineering materials, earthquake engineering, environmental engineering, geotechnical engineering, hydrology and water resources engineering, structural engineering, and structural mechanics.
The undergraduate curriculum leads to a BS in Civil Engineering, a broad-based education in environmental engineering, geotechnical engineering, hydrometry and water resources engineering, environmental engineering, and structural engineering and mechanics. This program is an excellent foundation for entry into professional practice in civil engineering or for more advanced study. The department also offers the undergraduate Environmental Engineering minor.

At the graduate level, MS and PhD degree programs are offered in the areas of civil engineering materials, environmental engineering, geotechnical engineering, hydrology and water resources engineering, and structures (including structural/earthquake engineering and structural mechanics). In these areas, research is being done on a variety of problems ranging from basic physics and mechanics problems to critical problems in earthquake engineering and in the development of new technologies for pollution control and water distribution and treatment.

**Undergraduate Study**

The civil engineering program is accredited by the Engineering Accreditation Commission of ABET.

The Civil Engineering major is a designated capstone major. In each of the major field design courses, students work individually and in groups to complete design projects. To do so, they draw on their prior coursework, research the needed materials and possible approaches to creating their device or system, and come up with creative solutions. This process enables them to integrate many of the principles they have learned previously and apply them to real systems. In completing their projects, students are also expected to demonstrate effective oral and written communication skills, as well as their ability to work productively with others as part of a team.

**Civil Engineering BS**

**Capstone Major**

**Learning Outcomes**

The Civil Engineering major has the following learning outcomes:

- Understanding of, and ability to apply, basic mathematical and scientific concepts that underlie the field
- Ability to contribute meaningfully to design projects
- Critical thinking skills, problem-solving abilities, and familiarity with computational procedures essential to the field
- Ability to work productively as a member of a team
- Effective oral and written communication skills

**Preparation for the Major**

Required: Chemistry and Biochemistry 20A, 20B, 20L; Civil and Environmental Engineering 1, M20 (or Computer Science 31); Mathematics 31A, 31B, 32A, 32B, 33A, 33B (or Mechanical and Aerospace Engineering 82); Physics 1A, 1B, 1C, 44L; one natural science course selected from Civil and Environmental Engineering SB3L, Earth, Planetary, and Space Sciences 3, 15, 16, 17, 20, Environment 12, Life Sciences 1, 2, 7A, Microbiology, Immunology, and Molecular Genetics 5, 6, or Neuroscience 10.

**The Major**

Required: Chemical Engineering 102A or Mechanical and Aerospace Engineering 105A, Civil and Environmental Engineering 91 (or Mechanical and Aerospace Engineering 101), 102, 103, C104 (or Materials Science and Engineering 104), 108, 110, 120, 135A, 150, 153, 190, Mechanical and Aerospace Engineering 103; three technical breadth courses (12 units) selected from an approved list available in the Office of Academic and Student Affairs; and at least eight major field elective courses (32 units) from the lists below with at least two design courses, one of which must be a capstone design course and two of which must be laboratory courses. The laboratory courses must be taken from two distinct areas. Courses applied toward the required course requirement may not also be applied toward the major field elective requirement.

**Civil Engineering Materials:** Civil and Environmental Engineering C104, C105, C182; laboratory course: 108L.

**Environmental Engineering:** Civil and Environmental Engineering 154, 155, 164, M165, M166; laboratory courses: 156A, 156B; capstone design courses: 157B, 157C.

**Geotechnical Engineering:** Civil and Environmental Engineering 125; laboratory courses: 128L, 129L; design courses: 121, 123 (capstone).

**Hydrology and Water Resources Engineering:** Civil and Environmental Engineering 157A; laboratory course: 157L; design courses: 151, 152 (capstone).

**Structural Engineering and Mechanics:** Civil and Environmental Engineering 125, 130, 135B, M135C, C137, 142; laboratory courses: 138L, 139L, 140L; design courses: 141, 143, 144 (capstone), 147 (capstone).

**Transportation Engineering:** Civil and Environmental Engineering 180, 181, C182.

**Additional Elective Options:** Courses selected from an approved list available in the Office of Academic and Student Affairs. Note: both 128L and 129L may be taken to satisfy the two-laboratory course requirement.

For information on UC, school, and general education requirements, see the College and Schools chapter.

**Environmental Engineering Minor**

The Environmental Engineering minor is designed for students who wish to augment their major program of study with an exposure to engineering methods applied to key environmental problems facing modern society in developed and developing countries. The minor also offers students a brief experience and understanding of the roles that environmental engineering methods play in solving environmental problems.

To enter the minor, students must be in good academic standing (2.0 grade-point average or better) and file a petition in the Office of Academic and Student Affairs, 6426 Boelter Hall.

**Required Lower-Division Course (4 units):** Mathematics 3C or 32A.

**Required Upper-Division Courses (24 units minimum):** Civil and Environmental Engineering 153 and five courses from Civil and Environmental Engineering 110, 150, 151, 152, 154, 155, 156A, 156B, 157A, 157B, 157C, 157L, C159, 164, M165, M166, Chemical Engineering 102A, Mechanical and Aerospace Engineering 103, 105A.

Credit for Chemical Engineering 102A and Mechanical and Aerospace Engineering 105A is not allowed. A minimum of 20 upper-division units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor, and at least 16 units applied toward the minor must be in residence at UCLA. Transfer credit for any of the above is subject to departmental approval; consult with the undergraduate counselors before enrolling in any courses for the minor.

Each minor course must be taken for a letter grade, and students must have a minimum grade of C (2.0) in each and an overall grade-point average of 2.0 or better in the minor. Successful completion of the minor is indicated on the transcript and diploma.

**Graduate Study**

Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Division website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

**Graduate Degrees**

The Department of Civil and Environmental Engineering offers Master of Science (MS) and Doctor of Philosophy (PhD) degrees in Civil Engineering.

**Civil and Environmental Engineering**

**Lower-Division Courses**

1. **Civil Engineering and Infrastructure.** (2) Lecture, two hours; outside study, four hours. Examples of infrastructure, its importance, and manner by which it is designed and constructed. Role of civil engineers in infrastructure development and preservation. P/NP grading.

2. **Flint Lux Freshman Seminars.** (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

Upper-Division Courses

102. Dynamics of Particles and Bodies. (2) Lecture, two hours; discussion, two hours; outside study, two hours. Requisites: course 91, Physics 1B. Introduction to fundamentals of dynamics of single particles, system of particles, and rigid bodies. Topics include kinematics of particles, work and energy, impulse and momentum, multiparticle systems, kinematics and kinetics of rigid bodies in two- and three-dimensional motion. Letter grading.

103. Applied Numerical Computing and Modeling in Civil and Environmental Engineering. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Requisites: course M20 (or Computer Science 31), Mathematics 31A, 31B, 32B, Physics 1A, 1B, 1C. Corequisite: course 108. Discussion of aspects of concrete and concrete materials, including manufacture of cement and production of concrete. Aspects of cement composition and hydration, microstructure, properties of plastic and hardened concrete, chemical admixtures, and quality control and acceptance testing. Development and testing of fundamentals for complete understanding of overall response of all civil engineering materials. By end of term, successful utilization of fundamental materials science concepts to understand, explain, analyze, and describe engineering performance of civil engineering materials. Letter grading.

110. Introduction to Probability and Statistics for Civil and Environmental Engineering. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Requisites: course M20, Probability 105A. Introduction to fundamental concepts and applications of probability and statistics in civil engineering, with focus on how these concepts are used in experimental design and sampling, data analysis, risk and reliability analysis, and project design under uncertainty. Topics include basic probability concepts, random variables and analytical probability distributions, functions of random variables, estimating parameters from observational data, regression, hypothesis testing, and Bayesian concepts. Letter grading.


197. Variable Topics in Civil and Environmental Engineering. (2 to 4) Seminar, two hours. Current topics and research methods in civil and environmental engineering. May be repeated for credit. Letter grading.

99. Student Research Program. (1 to 2) Tutorial (supervised research or other scholarly work), three hours per week. Entry-level research for lower-division students under guidance of faculty mentor. Students must be in good academic standing and enrolled in minimum of 12 units (excluding this course). Individual research projects. Consult Undergraduate Research Center. May be repeated, P/N grading.


135A. Elementary Structural Analysis. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Enforced requisites: courses M20 (or Computer Science 31), 108. Introduction to fundamental concepts of structural engineering. Classification of structural elements; analysis of statically determinate trusses, beams, and frames; deflections in elementary structures; virtual work; analysis of indeterminate structures using force method; introduction to displacement method and energy concepts. Letter grading.

135B. Intermediate Structural Analysis. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Requisite: course 108. Lecture and frame structures using matrix methods; matrix force methods; matrix displacement method; analysis concepts based on theory of virtual work; moment distribution. Letter grading.

M135C. Introduction to Finite Element Methods. (4) (Same as Mechanical and Aerospace Engineering M168.) Lecture, four hours; discussion, one hour; outside study, seven hours. Requisite: or Mechanical and Aerospace Engineering 156A or 166A. Introduction to basic concepts of finite element methods (FEM) and applications to structural and soil mechanics and hydromechanics; numerical analysis; structural analysis; weighted residual, least squares, and Ritz approximation methods; shape functions; convergence properties; isoparametric formulation of multi-dimensional elements; finite element methods; analytical and computer-based solutions; practical use of FEM software; geometric and analytical modeling; pre-processing and post-processing techniques; term projects with computers. Letter grading.

135L. Structural Design and Testing Laboratory. (4) Lecture, two hours; laboratory, five hours; outside study, five hours. Requisites: courses M20, 135A. Limited enrollment. Computer-aided optimum design, computerized instrumentation, finite element analysis, model structure. Use of computer-based data acquisition and interpretation systems for comparison of experimental and theoretically predicted behavior. Letter grading.

C137. Elementary Structural Dynamics. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Requisite: course 135B. Basic structural dynamics course for civil and environmental engineering. Data analysis and free and forced vibrations of single degree of freedom systems, introduction to response history and response spectrum analysis approaches for single and multiple degree of freedom systems. Aerial, bending, and torsional vibration of beams. Concurrently scheduled with course C239. Letter grading.

137L. Structural Dynamics Laboratory. (4) Lecture, two hours; laboratory, six hours; outside study, four hours. Requisite or corequisite: course 137. Calibration of instrumentation for dynamic measurements.

140L. Structural Components and Systems Testing Laboratory. (4) Lecture, two hours; laboratory, six hours; outside study, six hours. Enforced requisite: course 142. Comparison of experimental results with analytical results and code requirements to assess accuracies and limitations of calculation procedures used in design of reinforced concrete structures. Tests include quasi-static tests of structural elements (beams, columns) and systems (slab-column, beam-column) and dynamic tests of structural systems. Quasi-static tests focus on assessment of element or subsystem stiffness, strength, and deformation capacity, whereas dynamic tests focus on assessment of periods, mode shapes, and vibration frequencies. Emphasis on assessment skills through preparation of laboratory reports and oral presentations. Letter grading.


142L. Reinforced Concrete Structural Laboratory. (4) Lecture, two hours; laboratory, six hours; outside study, four hours. Requisite: courses 135B, 142. Limited emphasis on test design and considerations used in analysis and design of reinforced concrete beams, columns, slabs, and joints evaluated using analysis and experiments. Links between theory, building codes, and experimental results. Students demonstrate accuracies and limitations of calculation procedures used in design of reinforced concrete structures. Development of skills for written and oral presentations. Letter grading.


144. Structural Systems Design. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Requisite: courses 141 or 142, and 190. Design course for civil engineering students, with focus on design and performance of complete building structural systems. International Building Code (IBC) and ASCE 7. Emphasis on designing reinforced concrete structures and structural steel building systems. Computer modeling, analysis, and performance assessment of building systems. Letter grading.

147. Design and Construction of Tall Buildings. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Requisite: courses 135B, 141, 190. Role of structural engineer, architect, and other design professionals in building design. Development of structural and design criteria for particular projects. Develop analysis and design methods for specific tall buildings. Letter grading.

148. Wood and Timber Design. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Requisite: recommended courses 108, 135A. Properties and behavior of wood and wood products, analysis and design of wood and timber structural members including tension, compression, and bending. Letter grading.

150. Introduction to Hydrology. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Enforced requisite: course 150 or 151. Introduction to hydrologic cycle and relevant atmospheric processes, water and energy balance, radiation, precipitation, evaporation, and transpiration, groundwater flow, and flood processes. Letter grading.

151. Introduction to Water Resources Engineering. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Enforced requisites: course 150, Mechanical and Aerospace Engineering 103. Study of hydrologic cycle and relevant atmospheric processes, water and energy balance, radiation, evaporation, infiltration, transpiration, groundwater flow, and flood processes. Letter grading.

152. Hydraulic and Hydrologic Design. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Enforced requisites: courses 150, 151, 190. Analysis and design of hydraulic and hydrologic systems, including stormwater management systems, potable and recycled water distribution systems, wastewater collection systems, and constructed wetlands. Emphasis on derivation of design criteria, determination of parameters for development, construction, and for operation of hydraulic and hydrologic systems. Letter grading.

153. Introduction to Environmental Engineering Science. (4) Lecture, four hours; discussion, one hour (when scheduled); outside study, seven hours. Requisite: course 150. Overview of fundamental environmental processes and applications. Letter grading.

154. Chemical Fate and Transport in Aquatic Environments. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Requisite: course 150. Biological, chemical, and physical methods used for analysis of water and wastewater treatment systems. Field trip. Letter grading.

155. Unit Operations and Processes for Water and Wastewater Treatment. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Requisite: course 150. Biological, chemical, and physical methods used for analysis of water and wastewater treatment systems. Field trip. Letter grading.

156A. Environmental Chemistry Laboratory. (4) Lecture, four hours; laboratory, four hours; outside study, six hours. Requisite: course 153 (may be taken concurrently). Basic laboratory techniques in analytical chemistry related to water and wastewater analysis. Selected experiments include gravimetric analysis, titriment spectrophotometry, and chromatographic techniques. Concepts to be applied to real water samples in course 156B. Letter grading.

156B. Environmental Engineering Unit Operations and Processes Laboratory. (4) Lecture, two hours; laboratory, two hours; outside study, four hours. Requisites: Chemistry 20A, 20B. Characterization and analysis of natural waters and wastewaters for inorganic and organic constituents. Selected experiments include analysis of solids, nitrogen species, oxygen demand, and chlorine residual, that are used in unit operation experiments that include reactor dynamics, aeration, gas stripping, coagulation/flocculation, and membrane separation. Letter grading.

157A. Hydrologic Modeling. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Enforced requisite: course 150 or 151. Introduction to hydrodynamic modeling. Topics selected from areas of (1) open-channel flow, including one-dimensional steady flow and unsteady flow, (2) pipe flow and water distribution systems, (3) rainfall–runoff modeling, and (4) groundwater flow and recharge. Emphasis on transport modeling, with focus on use of industry and/or research standard models with locally relevant applications. Letter grading.

157B. Design of Water Treatment Plants. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Requisites: courses 155, 190. Water quality standards and regulations, overview of water treatment plants, design of unit operations, predesign of water treatment plants, hydraulics of plants, process control, and cost estimation. Letter grading.

157C. Design of Wastewater Treatment Plants. (4) Lecture, four hours; outside study, eight hours. Requisites: courses 155, 190. Design of wastewater treatment plants, including primary and secondary treatment, detailed design review of existing plants, process control, and economics. Letter grading.

157L. Hydrologic Analysis. (4) Lecture, two hours; laboratory, five hours; outside study, six hours. Requisite: course 150. Collection, compilation, and interpretation of observed data from hydrologic systems. Emphasis on development of hydrologic models to predict the performance of hydrologic systems. Letter grading.

157T. Hydrogeology and Hydrologic Modeling. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Requisites: courses 150, 151, 190. Study of hydrologic cycle and relevant atmospheric processes, water and energy balance, radiation, evaporation, infiltration, transpiration, groundwater flow, and flood processes. Letter grading.

160. Environmental Nanotechnology: Implications and Applications. (4) (Same as Engineering M165.) Lecture, four hours; discussion, two hours; outside study, six hours. Enforced requisite: course 150. Introduction to environmental science, engineering, and ecological principles to design and analyze infrastructure systems using nanotechnology. Environmental systems, and (3) use of nanotechnology for energy and water production, plus environmental protection. Technical contents include three multidisciplinary areas: (1) physical, chemical, and biological properties of nanomaterials, (2) transport, reactivity, and toxicity of nanoscale materials in natural environmental systems, and (3) application of nanotechnology for energy and water production, plus environmental protection, monitoring, and remediation. Letter grading.

C159. Green Infrastructure. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Requisites: courses 150, 153. Overview of fundamental science, engineering, and ecological principles to design and analyze infrastructure systems using nanotechnology. Technical contents include three multidisciplinary areas: (1) physical, chemical, and biological properties of nanomaterials, (2) transport, reactivity, and toxicity of nanoscale materials in natural environmental systems, and (3) application of nanotechnology for energy and water production, plus environmental protection, monitoring, and remediation. Letter grading.

M165. Environmental Nanotechnology: Implications and Applications. (4) (Same as Engineering M165.) Lecture, four hours; discussion, two hours; outside study, six hours. Enforced requisite: course 150. Introduction to environmental science, engineering, and ecological principles to design and analyze infrastructure systems using nanotechnology. Environmental systems, and (3) use of nanotechnology for energy and water production, plus environmental protection. Technical contents include three multidisciplinary areas: (1) physical, chemical, and biological properties of nanomaterials, (2) transport, reactivity, and toxicity of nanoscale materials in natural environmental systems, and (3) application of nanotechnology for energy and water production, plus environmental protection, monitoring, and remediation. Letter grading.

M166. Environmental Microbiological. (4) (Same as Environmental Health and Toxicology M166.) Lecture, four hours; discussion, two hours; outside study, six hours.
Recommended requisites: course 153. Microbial cell and its metabolic capabilities, microbial genetics and its potentials, growth of microbes and kinetics of growth, microbial ecology and diversity, microbiology of wastewater treatment, probing of microbes, public health microbiology. Letter grading.

M166L. Environmental Microbiology and Biotechnology Laboratory. (1) [Same as Environmental Health Sciences M166L] Laboratory, two hours; outside study, two hours. Corequisite: course M166. General laboratory principles of environmental microbiology, sampling of environmental samples, classical and modern molecular techniques for enumeration of microbes and environmental microorganisms, techniques for determination of microbial activity, laboratory setups for studying environmental biotechnology. Letter grading.

170. Introduction to Construction Management. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Introduction to construction engineering theory, management, and techniques. Implementation of exercises from academic texts and real project case studies. Discussion of building systems, building components, project delivery methods, document control, critical path method scheduling, labor management, quality management, estimating, sustainability, Letter grading.

180. Introduction to Transportation Engineering. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Designed for juniors/senior Civil Engineering students and Public Affairs graduate students. General characteristics of transportation systems, including streets and highways, rail, transit, air, and water. Capacity considerations, including planning, design, and operations. Components of roadway design, including alignment, pavement, cross sections, and pavements. Letter grading.

181. Traffic Engineering Systems: Operations and Control. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Designed for juniors/seniors and public affairs graduate students. Applications of traffic safety improvements, highway capacity analyses, signal design and timing, Intelligent Transportation Systems concepts, and traffic interface with railroads, urban transit, bicyclists, and pedestrian. Students analyze local roadway and present recommended improvements to public agency officials. Letter grading.

C182. Rigid and Flexible Pavements: Design, Materials, and Serviceability. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Recommended requisites: courses C104, 108, 120, Materials Science, soil mechanics, and mechanics of materials. Discussion of aspects of pavement design, including materials selection and traffic loading and volume. Special attention to aspects of pavement distress/serviceability and factoring into metrics of pavement performance. Discussion of potential choices of pavement materials (i.e., asphalt and concrete) and their specific strengths and weaknesses in paving applications. Unification and correlation of different variables that influence pavement performance and highlight their relevance in pavement design. Concurrently scheduled with course C282. Letter grading.

186. Special Courses in Civil and Environmental Engineering (1) Lecture, four hours; discussion, to be arranged. Special topics in civil engineering for undergraduate students taught on experimental or temporary basis, such as those taught by resident and visiting faculty members. May be repeated for credit with topic or instructor change. Letter grading.

190. Professional Practice. (2) Lecture, two hours; outside study, one hour. Corequisite: one course from 121, 141, 142, 151, 155 (may be taken concurrently). Sustainability in design (e.g., LEED certification for building projects), professional licensure (PE, SE, and GEO), project management (proposal, scheduling, and budgeting), business, public policy, leadership, ethics, earthquake loads, wind loads, load combinations, and environmental impact reports. Letter grading.

194. Research Group Seminars: Civil and Environmental Engineering. (2 to 8) Seminar, two to eight hours; outside study, four to 16 hours. Designed for undergraduate students who are part of research group. Discussion of research methods and current literature. Waiver to participation in group for permit of members or students. May be repeated for credit. Letter grading.

199. Directed Research in Civil and Environmental Engineering. (2 to 8) Tutorial, to be arranged. Limited to juniors/seniors. Supervised individual research or investigation under guidance of faculty mentor. Culminating paper or project required. May be repeated for credit with school approval. Individual contract required; enrollment petitions available in Office of Academic and Student Affairs. Letter grading.

Graduate Courses

200. Civil and Environmental Engineering Graduate Seminar. (2) Seminar, four hours; outside study, two hours. Various topics in civil and environmental engineering that may include earthquake engineering, environmental engineering, geotechnical engineering, hydrology and water resources engineering, materials engineering, structural engineering, and structural mechanics. May be repeated for credit. S/U grading.

C204. Structure, Processing, and Properties of Civil Engineering Materials. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Discussion of aspects of cement and concrete materials, including manufacture of cement and production of concrete. Aspects of cement composition and basic chemical reaction properties of plastic and hardened concrete, chemical admixtures, and quality control and acceptance testing. Development and testing of fundamentals for complete understanding of overall response of all civil engineering materials. By end of term, successful utilization of fundamental materials science concepts to understand, explain, and analyze, and describe engineering performance of civil engineering materials. Concurrently scheduled with course C104. Letter grading.


206. Modeling and Simulation of Civil Engineering Materials. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Enforced requisites: Chemistry 20A, 20B, Mathematics 31A, 31B, 32B, Physics 1A, 1B, 1C. Fundamental examination of modeling and numerical simulations for civil engineering materials, with focus on practical examples and applications so students can independently run simulations at scale relevant to targeted problems. Letter grading.


222. Introduction to Soil Dynamics. (4) Lecture, four hours; outside study, eight hours. Enforced requisites: course 120. Review of engineering problems involving soil dy- namics. Fundamentals of theoretical soil dynamics; re- response of sliding block-on-plane to cyclic earthquake loads, application of theories of single degree-of- freedom (DOF) system, multiple DOF system and one-dimensional wave propagation. Fundamentals of cy- clic soil behavior: stress-strain-pore water pressure behavior, shear moduli and damping, cyclic settlement and concept of volumetric cyclic threshold shear strain; Introduction to modeling of cyclic soil behavior. Letter grading.

223. Slope Stability and Earth Retention Systems. (4) Lecture, four hours; outside study, eight hours. Requisite: courses 120, 121, 220. Basic concepts of soil mechanics and geotechnics, slope design, limit equilibrium analysis, seepage analysis, staged construction, and rapid drawdown. Theories of earth pressure, retaining structures, special application to design of retaining walls, sheet piles, mechanically stabilized earth, soil nails, and anchored and braced excavation. Letter grading.


225. Geotechnical Earthquake Engineering. (4) Lecture, four hours; outside study, eight hours. Requi- sites: courses 220, 245 (may be taken concurrently). Analysis of earthquake-induced ground failure, in- cluding soil liquefaction, cyclic softening of clays, seismic compression, surface fault rupture, and seismic slope stability. Ground response effects on earthquake ground motions. Soil-structure interaction, including inertial and kinetic centrifuge modeling. Foundation deformations under seismic loading. Letter grading.

226. Geoenvironmental Engineering. (4) Lecture, four hours; outside study, eight hours. Requisite: course 120. Field of geoenvironmental engineering in- volves application of geotechnical principles to envi- ronmental problems. Topics include environmental regulations, waste characterization, geotechnics, solid waste landfills, subsurface barrier walls, and disposal of high water content materials. Letter grading.

227. Numerical Methods in Geotechnical Engineer- ing. (4) Lecture, four hours; outside study, eight hours. Requisite: course 220. Introduction to concepts of computer modeling of soils using finite element method, and to constitutive modeling based on elas- ticity and plasticity theories. Special emphasis on nu- merical applications and identification of modeling concerns such as instability, bifurcation, nonexis- tence, and nonuniqueness of solutions. Letter grading.

228. Engineering Geology: Geologic Principles for Engineers. (4) Lecture, four hours; outside study, eight hours. Requisite: course 120. Engineering geology- ing involves interpretation, evaluation, integration, and application of geologic information and data to civil works. Topics include geologic characterization and classification of soil and rock units. Relationships de- veloped between landforms, active, past, and ancient geologic processes, ground and surface water, and properties of soil and rock. Landform changes occur in response to dynamic processes, including changes in climate, slope formation, fluvial (river) dynamics, coastal dynamics, and deep-seated processes like volcanoism, seismicity, and tectonics. Evaluation and analysis of the effects of geology on engineering design and prediction of their potential effect on land use, development, public health, and public safety. Letter grading.

M230A. Linear Elasticity. (4) [Same as Mechanical and Aerospace Engineering M230A] Lecture, four hours; outside study, eight hours. Requisite: Mechan- ical and Aerospace Engineering 155A or 166A. Linear elastostatics. Cartesian tensors; infinitesimal strain tensor; Cauchy stress tensor; equilibrium equations; linear constitutive relations; plane elastostatic problems, holes, corners, inclusions,
M230B. Nonlinear Elasticity. (4) (Same as Mechanical and Aerospace Engineering M265B.) Lecture, four hours; outside study, eight hours. Requisite: course M230A. Kinematics of deformation, material and spatial coordinates, deformation gradient tensor, nonlinear and linear strain tensors, strain displacement relations, balance laws, Cauchy and Piola stresses, Cauchy equations of motion, balance of energy, stored energy; constitutive relations, elasticity, hyperelasticity, thermoelasticity; linearization of field equations; solution of selected problems. Letter grading.


232. Theory of Plates and Shells. (4) Lecture, four hours; outside study, eight hours. Requisite: course 130. Small and large deformation theories of thin plates and shells; energy methods; free vibrations; membrane theory of shells; axisymmetric deformations of cylindrical and spherical shells, including bending. Letter grading.


233A. Advanced Structural Analysis. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Requisite: course 135A. Recommended: course 135B. Review of matrix force and displacement methods of structural analysis; virtual work theorem, virtual forces, and displacements; theorems on stationary value of total and complementary potential energy, minimum total potential energy, Maxwell/Betti theorems, and assumptions, introduction to finite element analysis. Letter grading.

235B. Finite Element Analysis of Structures. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Requisites: courses 130, 235A. Direct energy methods for deformable systems; solution methods for linear equations; analysis of structural systems with one-dimensional elements; introduction to variational calculus; discrete element displacement, force, and mixed methods for membrane, plate, shell structures; instability effects. Letter grading.

235C. Nonlinear Structural Analysis. (4) Lecture, four hours; outside study, eight hours. Requisite: course 235B. Classification of nonlinear effects; material nonlinearities; conservative, nonconservative material behavior; geometric nonlinearities, Lagrangian description of motion; finite element methods in geometry and load problems; postbuckling behavior of structures; solution of nonlinear equations; incremental, iterative, programming methods. Letter grading.


239. Elementary Structural Dynamics. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Recommended requisite: course 135B. Basic structural dynamics course for civil engineering students. Elastic free and forced vibrations of single degree of freedom systems, introduction to response history and response spectrum analysis approaches for single and multidegree of freedom systems. Axial, bending, and torsional vibration of beams. Concurrently scheduled with course C137. Letter grading.


243A. Behavior and Design of Reinforced Concrete Structural Elements. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Requisites: courses 243A, 246A. Information on response and behavior of reinforced concrete systems to earthquake ground motions. Topics include use of elastic and inelastic response spectra, role of strength, stiffness, and ductility in design, use of prescriptive versus performance-based philosophies, and development and application of elastic and inelastic analysis techniques for new and existing construction. Letter grading.

244. Structural Reliability. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Introductory concepts and applications of structural reliability. Topics include computing first- and second-order estimates of failure probabilities of engineered systems, computing sensitivities of failure probabilities to assumed parameter values, measuring relative importance of random variables associated with systems, identifying relative advantages and disadvantages of various analytical reliability methods, using reliability tools of reinforced concrete buildings codes, and performing reliability calculations related to performance-based engineering. Letter grading.

245. Earthquake Ground Motion Characterization. (4) Lecture, four hours; outside study, six hours. Corequisite: course C137 or C245. Earthquake fundamentals, including plate tectonics, fault types, seismic waves, and magnitude scales. Characterization of ground motion, including magnitude range and rate of future earthquakes. Ground motion prediction equations and site effects on ground motion. Seismic hazard analysis. Ground motion selection and modification for response history analysis. Letter grading.

246. Structural Response to Ground Motions. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Requisites: courses C137, 141, 142, 254A. Spectral analysis of ground motions; response, time, and Fourier spectra. Response of structures to ground motions due to earthquakes. Computational methods to evaluate structural response. Response analysis, including evaluation of contemporary design standards. Limitations due to idealizations. Letter grading.

250. Contaminant Transport in Groundwater. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Requisites: courses 243A, 246A. Information on response and behavior of reinforced concrete systems to earthquake ground motions. Topics include use of elastic and inelastic response spectra, role of strength, stiffness, and ductility in design, use of prescriptive versus performance-based philosophies, and development and application of elastic and inelastic analysis techniques for new and existing construction. Letter grading.


250C. Hydrometeorology. (4) Lecture, four hours; outside study, eight hours. Requisite: course 250A. In-depth study of hydrometeorological processes. Role of hydrology in climate system, precipitation and evaporation processes, atmospheric radiation, exchanges of mass, heat, and momentum between soil and vegetation surface and overlying atmosphere, flux and transport in turbulent boundary layer, basic remote sensing principles. Letter grading.

250D. Water Resources Systems Engineering. (4) Lecture, four hours; outside study, eight hours. Requisite: course 151. Application of mathematical programming techniques to water resources systems. Topics include reservoir and canal operation; optimal timing, sequencing and sizing of water resources projects; and multiobjective planning and decision making for water resources systems. Emphasis on management of water quantity. Letter grading.

251A. Rainfall-Runoff Modeling. (4) Lecture, four hours; outside study, eight hours. Requisites: courses 250A, 251B. Introduction to hydrologic modeling concepts, including rainfall-runoff analysis, input data, uncertainty analysis, lumped and distributed modeling, parameter estimation and sensitivity analysis, and application of models for flood forecasting and prediction of streamflows in water resource applications. Letter grading.

251B. Contaminant Transport in Groundwater. (4) Lecture, four hours; outside study, eight hours. Requisites: courses 243A, 250B. Contaminant transport of water and contaminants in groundwater. Various hydrodynamic dispersion, governing equations of mass transport in porous media, various analytical and numerical solutions, determination of dispersion parameters by laboratory and field experiments, biological and reactive transport in multiphase flow, remediation design, software packages and applications. Letter grading.

251C. Remote Sensing with Hydrologic Application. (4) Lecture, four hours; outside study, eight hours. Requisites: courses 250A, 250C. Introduction to basic physical concepts of remote sensing as they relate to surface and atmospheric hydrologic processes. Applications include radiative transfer modeling and retrieval of hydrologically relevant parameters like topography, soil moisture, snow properties, vegetation, and precipitation. Letter grading.
251D. Hydrologic Data Assimilation. (4) Lecture, four hours; outside study, eight hours. Requisites: courses 250A, 250C. Introduction to basic concepts of classical and Bayesian estimation theory for purposes of hydrologic data assimilation. Applications geared towards disparate observations into dynamic models of hydrologic systems. Letter grading.

252. Engineering Economic Analysis of Water and Environmental Planning. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Requisites: Engineering 110, one or more courses from Economics 1, 2, 11, 101. Economic theory and applications in analysis and management of water and environmental problems; application of price theory to water resource management and renewable resources; benefit-cost analysis with applications to water resources and environmental planning. Letter grading.


254A. Environmental Aquatic Inorganic Chemistry. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Requisites: Chemistry 20B, Mathematics 31A, 31B, Physics 1A, 1B. Equilibrium and kinetic descriptions of chemical behavior of metals and inorganic ions in natural fresh/marine surface waters and in water treatment. Processes include acid-base chemistry and alkalinity (carbonate system), complexation, precipitation/dissolution, absorption oxidation/reduction, and photochemistry. Letter grading.

255A. Physical and Chemical Processes for Water and Wastewater Treatment. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Requisites: courses 155, 254A. Review of momentum and mass transfer, chemical reaction engineering, coagulation and flocculation, granular filtration, sedimentation, carbon adsorption, gas transfer, disinfection, oxidation, and membrane processes. Letter grading.

255B. Biological Processes for Water and Wastewater Treatment. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Requisites: courses 255A, 255E. Application of biological treatment to water treatment. Emphasis on processes pertinent to movement and transformation of contaminants. Types of modeling include speciation, nuclear waste disposal, biodegradability and risk assessment, mining and mining waste, deep well injection, landfill leachate, and microbial respiration. Research/modeling project required. Letter grading.

258A. Membrane Separations in Aquatic Systems. (4) Lecture, four hours; outside study, eight hours. Requisite: course 254A. Applications of membrane separations to desalination, water reclamation, brine disposal, and ultrapure water systems. Discussion of reverse osmosis, ultrafiltration, ultrafiltration, and ion exchange technologies from both practical and theoretical standpoints. Letter grading.

259. Green Infrastructure. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Requisites: courses 150, 153. Overview of fundamental science, ecological principles to design green infrastructure for stormwater management. Students design green infrastructure based on current practices, perform engineering calculations to calculate performance and develop critical thinking skills needed to design innovative or futuristic green infrastructures that would not only mitigate adverse impact of climate change, but also remain resilient under extreme weather conditions expected during climate change. Concurrently scheduled with course C159. Letter grading.

260. Advanced Topics in Hydrology and Water Resources. (4) Lecture, four hours; outside study, eight hours. Requisites: courses 250B, 250D. Current research topics in inverse problem of parameter estimation, experimental design, conjunctive use of surface and groundwater, multibjective water resources planning, and optimization of water resource systems. Topics may vary from term to term. Letter grading.


261B. Advanced Biological Processes for Water and Wastewater Treatment. (4) Lecture, four hours; outside study, eight hours. Requisite: course 255B. In-depth treatment of selected topics related to biological treatment of waters and wastewaters, such as biodegradation of xenobiotics, pharmaceuticals, emerging pollutants, toxicity, and nutrients. Discussion of theoretical aspects, experimental observations, and recent literature. Application to important and emerging environmental problems. Letter grading.

M262A. Introduction to Atmospheric Chemistry. (4) (Same as Atmospheric and Oceanic Sciences M203A.) Lecture, three hours. Requisite for undergraduates: Chemistry 20B. Principles of chemical kinetics, thermodynamics, and photochemistry; chemical composition and history of Earth’s atmosphere; biogeochemical cycles of key atmospheric constituents; basic photochemistry of troposphere and stratosphere; chemical and physical processes; air pollution; chemistry and climate. S/U or letter grading.

M262B. Atmospheric Diffusion and Air Pollution. (4) (Same as Atmospheric and Oceanic Sciences M254B.) Lecture, three hours. Nature and sources of atmospheric pollution; diffusion from point, line, and area sources; pollution dispersion in urban complexes; meteorological factors and air pollution potential; meteorological aspects of air pollution. S/U or letter grading.

263A. Physics of Environmental Transport. (4) Lecture, four hours; outside study, eight hours. Designed for graduate students. Transport processes in surface water, groundwater, and atmosphere. Emphasis on exchanges across phase boundaries: sediment/water interface; air/water gas exchange; particles, droplets, and bubbles; evaporation and mixing; effect of reactions on transport; linkages between physical, chemical, and biological processes. Letter grading.

263B. Advanced Topics in Transport at Environmental Interfaces. (4) Lecture, four hours; outside study, eight hours. In-depth treatment of selected topics involving transport phenomena at environmental interfaces between solid, fluid, and gas phases, such as aquatic sediments, porous aggregates, and vegetative canopies. Discussion of theoretical models and experimental observations. Application to important environmental engineering problems. Letter grading.

266. Environmental Biotechnology. (4) Lecture, four hours; outside study, eight hours. Requisites: courses 153, 254A. Environmental biotechnology—concept and potential, biotechnology of pollution control, bioremediation; biomass conversion: composting, biogas and bioethanol production. Letter grading.

267. Environmental Applications of Geochemical Modeling. (4) Lecture, four hours; outside study, eight hours. Requisite: course 254A. Geochemical modeling is important tool for predicting environmental impacts of contamination. Hands-on experience in modeling using geochemical software packages commonly found in environmental consulting industry to gain better understanding of governing geochemical principles pertaining to movement and transformation of contaminants. Types of modeling include speciation, mineral solubility, surface complexation, reaction path, inverse, mass and energy transport modeling. Case studies involve acid mine drainage, landfill leachate, and microbial respiration. Research/modeling project required. Letter grading.

C282. Rigid and Flexible Pavements: Design, Materials, and Serviceability. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Correlation analysis, and metrization of aspects of pavement design, including materials selection and traffic loading and volume. Special attention to aspects of pavement distress/serviceability and factoring of these into metrics of pavement performance. Discussion of potential choices of pavement materials (i.e., asphalt and concrete) and their specific strengths and weaknesses in paving applications. Unification and correlation of different variables that influence pavement performance and highlight their relevance in pavement design. Concurrently scheduled with course C182. Letter grading.

296. Advanced Topics in Civil Engineering. (2 to 4) Seminar, to be arranged. Discussion of current research and literature in research specialty of faculty member teaching course. S/U grading.

298. Seminar: Engineering. (2 to 4) Seminar, to be arranged. Limited to graduate civil engineering students. Seminars may be organized in advanced technical fields. If appropriate, field trips may be arranged. May be repeated with topic change. Letter grading.

375. Teaching Apprentice Practicum. (1 to 4) Seminar, to be arranged. Preparation: apprentice personnel employment as teaching assistant, associate, or fellow. Teaching apprenticeship under active guidance and supervision of regular faculty member responsible for curriculum and instruction at UCLA. May be repeated for credit. S/U grading.

495. Teaching Assistant Training Seminar. (2) Seminar, two hours. Preparation: appointment as teaching assistant in Civil and Environmental Engineering Department. Seminar on communication of civil engineering principles, concepts, and methods; teaching assistant preparation, organization, and presentation of material, including use of visual aids; grading, advising, and rapport with students. S/U grading.

596. Directed Individual or Tutorial Studies. (2 to 8) Tutorial, to be arranged. Limited to graduate civil engineering students. Petition forms to request enrollment may be obtained from assistant dean, Graduate Studies. Supervised investigation of advanced technical problems. S/U grading.

597A. Preparation for MS Comprehensive Examination. (2 to 12) Tutorial, to be arranged. Limited to graduate civil engineering students. Reading and preparation for MS comprehensive examination. S/U grading.

597B. Preparation for PhD Preliminary Examinations. (2 to 16) Tutorial, to be arranged. Limited to graduate civil engineering students. Preparation for oral qualifying examination, including preliminary research on dissertation. S/U grading.

598. Research for and Preparation of MS Thesis. (2 to 12) Tutorial, to be arranged. Limited to graduate civil engineering students. Supervised independent research for MS candidates, including thesis prospectus. S/U grading.

599. Research for and Preparation of PhD Dissertation. (2 to 16) Tutorial, to be arranged. Limited to graduate civil engineering students. Supervised independent research for doctoral candidates. Credit may be repeated for credit. S/U grading.
CLASSICS
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Classics
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Kathryn A. Morgan, PhD, Chair

Professors
David L. Blank, PhD
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John K. Papadopoulos, PhD
Alex C. Purves, PhD
Amy E. Richlin, PhD
Giulia Sissa, PhD
Brent H. Vine, PhD (A. Richard Diebold, Jr., Endowed Professor of Indo-European Studies)

Professors Emeriti
Sander M. Goldberg, PhD
Robert A. Gurval, PhD
Michael W. Haslam, PhD
Steven Lattimore, PhD
Jaan Puhvel, PhD

Associate Professors
Chris J. Johanson, PhD
Francesca K. Martelli, DPhil

Assistant Professors
Sarah E. Beckmann, PhD
Bryant Kirkland, PhD
Lydia M. Spielberg, PhD
Adriana M. Vazquez, PhD

Adjunct Associate Professor
Catherine Atherton, PhD

Scope and Objectives
The civilizations of ancient Greece and Rome are the focus of research and teaching in the Department of Classics. These areas of study are important in their own right and for their contributions to the political, cultural, intellectual, and artistic development of the Western world. To this end, the department offers a wide variety of interdisciplinary courses in classical civilization (multiple-listed in the Art History, Philosophy, and Political Science departments), as well as elementary and advanced courses in ancient Greek and Latin language, literature, and linguistics. Classical civilization courses include such topics as Greek and Latin literature in translation (genres of epic, comedy, tragedy, biography), classical mythology, religion, law, gender and sexuality, politics, philosophy, art and archaeology, and the reception of the ancient world in modern cultures (cinema and classics). The department offers Bachelor of Arts degrees in Classical Civilization, in Greek, in Latin, and in Greek and Latin and the PhD degree in Classics. Students can earn a Master of Arts degrees in Classics (Greek and Latin), in Greek, or in Latin only after they have been admitted to the PhD program.

Undergraduate Study
Students considering a major in the department should consult with the adviser as soon as possible in their UCLA career, but in no case later than the point at which they are about to take upper-division courses.

The majors offered in the Classics Department are designated capstone majors. Undergraduate students take a capstone seminar in which they use the skills and expertise acquired in earlier coursework to research, analyze, and complete a written paper or project. They identify and analyze ancient classical documents, material evidence, or other forms of primary sources and demonstrate their critical skills by engaging in presentations and weekly discourse with their peers.

Note: Students in the Greek, Latin, and Greek and Latin majors are permitted to take Greek 200A, 200B, 200C and Latin 200A, 200B, 200C with consent of the instructor.

Classical Civilization BA

Capstone Major
The civilizations of ancient Greece and Rome have made important contributions to the political, social, artistic, and intellectual development of the Western world. The purpose of the Classical Civilization major is to provide students with a formal and balanced introduction to the historical and cultural experiences of the ancient Greeks and Romans. The program of study is structured, yet not rigid. Lower-division survey courses and requirements in elementary language study, ancient history, and classical art establish an essential background of knowledge, while electives encourage individual and specialized interests. The program offers a broad range of courses in the fields of language, literature, history, mythology, religion, philosophy, art, and archeology. The major serves as excellent and rewarding preparation for a professional career in medicine, law, business, journalism, communications, or the arts.

Learning Outcomes
The Classical Civilization major has the following learning outcomes:

• Demonstrated specific skills and expertise, including research, analysis, and writing
• Identification and analysis of appropriate ancient sources, material evidence, and other primary documents appropriate to the field
• Engagement with peers through presentation, discussion, and critique of student work
• Conception and execution of a project that identifies and engages with a specialized topic
• Working knowledge of scholarly discourse relative to a specialized topic

Preparation for the Major
Required: Classics 10, 20, Greek 3 or 16 or Latin 3 or 16, and one course from 30, 40W, 41W, 42, 51A, 51B, 60, 88GE.

Transfer Students
Transfer applicants to the Classical Civilization major with 90 or more units must complete as many of the following introductory courses as possible prior to admission to UCLA: one classical Greek culture course, one Roman civilization course, and one course in Greek or Roman literature in translation, classical mythology, or classical archaeology. Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

The Major
Required: (1) Seven upper-division Greek courses, including course 110; Greek 197 and 199 may be applied only by petition; (2) three upper-division courses in classical civilization and/or ancient history (History 112A through 112E, 113A, 113B, 114A, 114B, 114C, 115). Courses in related fields not offered...
Greek and Latin BA

Capstone Major

Learning Outcomes
The Greek and Latin major has the following learning outcomes:

• Demonstrated specific skills and expertise, including research, analysis, and writing
• Identification and analysis of appropriate ancient sources, material evidence, and other primary documents appropriate to the field
• Engagement with peers through presentation, discussion, and critique of student work
• Conception and execution of a project that identifies and engages with a specialized topic
• Working knowledge of scholarly discourse relative to a specialized topic

Preparation for the Major

Required: Classics 10, 20; Greek 1, 2, 3, 20 and Latin 1, 2, 3, 20, or equivalent. Greek 16 may be substituted for Greek 1, 2, 3.

Transfer Students
Transfer applicants to the Greek and Latin major with 90 or more units must complete as many of the following introductory courses as possible prior to admission to UCLA: one year of Greek and of Latin and related courses in civilization, culture, history, linguistics, literature, and closely related languages.

To enter the minor, students must have an overall grade-point average of 2.0 or better.

Required Lower-Division Courses (15 units): Classics 10, 20, and one course from 30, 40W, 41W, 42, 51A, 51B, 60.

Required Upper-Division Courses (20 units): Five upper-division courses in classical civilization offered by the department. One course in a related field may be substituted with approval of the faculty undergraduate adviser. Classics 191 may be applied, but all other courses in the 190 series may be substituted only by petition.

A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor.

Each minor course must be taken for a letter grade, and students must have an overall grade-point average of 2.0 or better in the minor. Successful completion of the minor is indicated on the transcript and diploma.

Greek Minor

The Greek minor is designed to recognize a serious commitment to the study of the Greek language. After a year of elementary Greek (Greek 1, 2, 3) or its equivalent, students select departmental upper-division reading courses in ancient Greek prose and poetry that provide close analysis of individual texts, with attention to their historical, literary, and cultural context. Subjects of study include Homeric epic, lyric poetry, tragedy and comedy, history, rhetoric, philosophy, and the New Testament.

To enter the minor, students must have an overall grade-point average of 2.0 or better.

Required Lower-Division Courses (14 units): Greek 2, 3, 20, or equivalent. Greek 16 may be substituted for Greek 2 and 3.

Required Upper-Division Courses (20 units): Five courses selected from Greek 100 through 133.

A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor.

Each minor course must be taken for a letter grade, and students must have an overall grade-point average of 2.0 or better in the minor. Successful completion of the minor is indicated on the transcript and diploma.
Latin Minor

The Latin minor is designed to recognize a serious commitment to the study of the Latin language. Before a year of elementary Latin (Latin 1, 2, 3) or its equivalent, students select departmental upper-di vision reading courses in classical (and/or late antique and medieval) Latin prose and poetry that provide close analysis of individual texts, with attention to their historical, literary, and cultural context. Subjects of study include Roman comedy, epic, lyric, elegy, satire, history, rhetoric, philosophy, epistology, and the novel.

To enter the minor, students must have an overall grade-point average of 2.0 or better.

Required Lower-Division Courses (14 units): Latin 2, 3, 20, or equivalent. Latin 16 may be substituted for Latin 2 and 3.

Required Upper-Division Courses (20 units): Five courses selected from Latin 100 through 133.

A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor.

Each minor course must be taken for a letter grade, and students must have an overall grade-point average of 2.0 or bet- ter in the minor. Successful completion of the minor is indicated on the transcript and diploma.

Graduate Study

Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Division website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Graduate Degrees

The Department of Classics offers the Master of Arts (MA) degree in Greek, Master of Arts (MA) degree in Latin, and Master of Arts (MA), Candidate in Philosophy (CPFH), and Doctor of Philosophy (PhD) degrees in Classics. MA degrees can be earned only after students have been admitted to the PhD program.

Classics

Lower-Division Courses

10. Discovering Greeks. (5) Lecture, three hours; discussion, one hour. Introduction to myths and legends of ancient Greece and/or Rome, role of those stories in their historical, literary, and modern approaches to studying them. P/NP or letter grading.

40W. Reading Greek Literature: Writing-Intensive. (5) Lecture, two hours; discussion, two hours. Requirement: English Composition 3. Exploration in detail and from variety of critical perspectives of carefully selected literary texts characteristic of ancient Greece and significant in Western literary tradition. Satisfies Writing II requirement. Letter grading.

41W. Reading Roman Literature: Writing-Intensive. (5) Lecture, two hours; discussion, two hours. Requirement: English Composition 3. Exploration in detail and from variety of critical perspectives of carefully selected literary texts characteristic of ancient Rome and significant in Western literary tradition. Satisfies Writing II requirement. Letter grading.

42. Cinema and Ancient World. (5) Lecture; screenings; five hours; discussion, one hour. Use of popular culture and cinema to introduce students to ancient Greek and/or Roman culture; focus at discretion of instructor. P/NP or letter grading.

47. Medical Terminology: Origins, Nature, and Practice. (5) Lecture, three hours. Introduces students to specialized vocabulary of health sciences, which is rooted in Greek and Roman languages and in those two cultures from which much of history of modern medicine is derived. Students gain working knowledge of fundamental terminology used in medicine and health sciences as well as how this terminology has been composed. Development of ability to interpret and pronounce words. Students apply linguistic rules and how they operate in English and field-specific vocabulary to understand new terminology in various health science fields. Study of etymological origins of medical terms and their meanings in aid of learning and recalling this terminology, and also to serve as mechanism for connecting health medical professions to humanistic origins. P/NP or letter grading.

48. Ancient Greek and Roman Medicine. (5) Lecture, three hours; discussion, one hour. Introduction to Greek and Roman medicine in its intellectual and cultural context. Examination of construction of concepts such as health, disease, physician, man, woman, cause, and difference. Readings from Greek literature and healing in cult of Asclepius. Readings of texts from Hippocratic collection, thought to be close to practice in 4th century BCE Greece. Study of physician, relating them to medical practice, competition for students and patients, intellectual display, developing scientific methods, ethnography, and Greek philosophy. Discussion of plagues as attempts to view such outbreaks as social phenomena. Examination of how Hippocratic understanding of how—or whether—we can know about what happens inside body was developed and challenged in 3rd-century BCE Alexandria. Study of Prince of Physicians, Galen, champion of Hippocratic medicine, influential into 18th century. P/NP or letter grading.

51A. Art and Archaeology of Ancient Greece. (5) Lecture, three hours; discussion, one hour. Survey of major period, theme, or medium of Greek art and ar- archaeology at discretion of instructor. P/NP or letter grading.

51B. Art and Archaeology of Ancient Rome. (5) Lecture, three hours; discussion, one hour. Survey of major period, theme, or medium of Roman art and ar archaology at discretion of instructor. P/NP or letter grading.

60. Fantastic Journey: Antiquity and Beyond. (5) Lecture, two and one half hours; discussion, one hour. Investigation of phenomenon of fantastic or imaginary journey, from Homer’s Odyssey to Stanley Kubrick’s 2001: A Space Odyssey. Examination of ways in which travel to strange or new worlds is presented through number of texts (and occasionally films) across different cultures and periods, with focus primarily on antiques but also looking at how important motifs from ancient Greek and Roman travel narratives have endured to present day. Issues include cultural relativism, what makes space either familiar or alien, re- building of home in fantastic territories, methods of travel (both fantastic and mundane), methods of mea- suring and distorting modern classifications of fantasy and science fiction, and to what extent these terms are applicable to ancient world. P/ NP or letter grading.

88A-88Z. Lower-Division Seminars. (4 each) Seminar, seven hours. Variable topics; consult Schedule of Classes or department for topics to be offered in specific term. P/NP or letter grading.

88GE. General Education Seminar Sequences. (5) Study three hours. Focused study of one aspect of ancient Greek or Roman culture or reception of classical tradition. Topics are interdisciplinary in nature (literature, arts, religion, politics, culture) and make con- nections between ancient and postclassical eras. Topics include rediscovery of Pompeii and Herculaneum; Roman religion and literature; pleasures of Greek or Roman body; and 18th-century British litera- ture and reception of classics. P/NP or letter grading.

98. Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to lower-divi- sion lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible stu- dents. Honors content noted on transcript. P/NP or letter grading.

99. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. De- signed as adjunct to lower-division lecture course. In- dividual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

99R. Student Research Program. (1 to 2) Tutorial (supervised research or other scholarly work), three hours per week per unit. Entry-level research for lower-divi- sion students under guidance of faculty mentor. Stu- dents must be in good academic standing and en- rolled in minimum of 12 units (excluding this course). Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP grading.

Upper-Division Courses

M114A. History of Ancient Mediterranean World. (4) Same as History MA 114A. Lecture, three to five hours. Intensive on-site study of history and culture of ancient Rome from founding of city to conversion of Christi- anity. Part of UCLA Summer Travel Program. P/NP or letter grading.

M114B. History and Monuments of Rome: Field Studies. (4) Same as History MA 114B) Fieldwork, five hours. Enforced corequisite: course M114A. Examination of history, art, and monuments of ancient Rome through daily lectures and field walks to museums and archaeological sites. Field trips outside Rome to Pompeii, Hadrian’s Villa, and ancient Ostia. Reception and ruins of Roman antiquity in medieval, Renaissance, and modern eras explored in their historical context. Part of UCLA Summer Travel Program. P/NP or letter grading.

M121. Ancient and Medieval Political Theory. (4) Same as Political Science MA 112A. Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Exposition and critical analysis of major thinkers such as Plato, Aristotle, Thomas Aquinas, St. Augustine, Machiavelli, and More and questions such as forms of government, citi- zenship, justice, happiness, rhetoric, religion, emo- tion. P/NP or letter grading.

M124. Modern Receptions of Ancient Political Theory. (4) Same as Political Science MA 112A. Lecture, three hours. Designed for juniors/seniors. Study of how Western culture has conceived and reinter- preted political thought of ancient Greeks and Ro-
M145A. Ancient Greek and Roman Philosophy. (4) (Same as Philosophy M103A.) Lecture, three hours. Study of some major Greek and Roman philosophical texts, including those of pre-Socratics, Plato, Aristotle, and Hellenistic philosophers, with emphasis on historical and cultural setting of these literary form; comparison of literary forms of different works; and contribution to discussion of basic philosophical issues. P/NP or letter grading.

M145B. Later Ancient Greek Philosophy. (4) (Same as Philosophy M103B.) Lecture, three hours. Requisite: course M145A. Philosophy 1, 104A, 104B, 101B, or 102. Study of some major texts in Greek philosophy of Hellenistic and Roman periods. Readings vary and include works by Stoics, skeptics, philosophers of science, Neoplatonists, etc. P/NP or letter grading.

M146A. Plato—Earlier Dialogues. (4) (Same as Philosophy M101A.) Lecture, three hours; discussion, one hour. Preparation: one philosophy course. Study of selected topics in early and middle dialogues of Plato. P/NP or letter grading.

M146B. Plato—Later Dialogues. (4) (Same as Philosophy M101B.) Lecture, three hours; discussion, one hour. Preparation: one philosophy course. Study of selected topics in middle and later dialogues of Plato. P/NP or letter grading.

M147. Aristotle. (4) (Same as Philosophy M102.) Lecture, three hours; discussion, one hour. Preparation: one philosophy course. Study of selected works of Aristotle. P/NP or letter grading.


M149. Bodies in Antiquity. (4) (Same as Disability Studies M122.) Lecture, three hours. Investigation of individuals and groups that compose ancient Greek and Roman societies and relationships they have with larger social body, with particular focus on marginalized or minority groups such as women, noncitizens (resident aliens and provincials), slaves, children, elderly, and disabled. Examination of ways these groups contribute to or detract from our understanding of ancient society as whole. May be repeated for credit with topic change. P/NP or letter grading.

150A. Female in Greek Literature and Culture. (4) Lecture, three hours. Requisite: course 10 or 41W. Interdisciplinary study of concept of female in Greek literature and culture. P/NP or letter grading.

150B. Female in Roman Literature and Culture. (4) Lecture, three hours; discussion, one hour. Requisite: course 20. Interdisciplinary study of concept of female in Roman literature and culture. P/NP or letter grading.

C151E. Archaeological Field Techniques. (12) Off-campus field archaeology, 36 hours. Preparation: at least one classical archaeology course. Training in techniques of archaeological research in field, including topographic and area survey, mapping and recording artifacts, excavation and data analysis. Conducted in Mediterranean area. Concurrently scheduled with course C251E. P/NP or letter grading.

152A. Ancient City: Greek World. (4) Lecture, three hours. Enforced requisites: course 20 or 51A or Art History 20 or History 1A. Range of interdisciplinary approaches to study of Athens and/or cities of Greek world, including Asia Minor, south Italy, and Sicily. Approaches, themes, and periods (both ancient city and receptions of city from classical antiquity to modern era) vary depending on individual instructor and topic. May be repeated for credit with topic change. P/NP or letter grading.

152B. Ancient City: Roman World. (4) Lecture, three hours. Enforced requisites: course 20 or 51B or Art History 20 or History 1A. Range of interdisciplinary approaches to study of Rome and its Empire from circa 300 BC to AD 400. Preparation: one classical archaeology course. Training in approaches of legal advocacy in ancient world. P/NP or letter grading.

152C. Etruscan Art and Archaeology. (4) (Same as Art History M113A.) Lecture, three hours. Requisite: course 20 or 51B or Art History 20. Art of Italic peninsula from circa 1000 BC to end of Roman Republic. P/NP or letter grading.

153A. Minoan Art and Archaeology. (4) (Same as Art History M113B.) Lecture, three hours. May be repeated for credit with topic change. Requisite: course 10 or 51A or Art History 20. Study of development of art and architecture of Greek world from approximately 490 through 430 BC. P/NP or letter grading.

153E. Hellenistic Greek Art and Archaeology. (4) (Same as Art History M113D.) Lecture, three hours. Requisite: course 10 or 51A or Art History 20. Study of development of art and architecture of Greek world from middle of 4th century BC, including transmitted of Greek art forms to Romans. P/NP or letter grading.

153F. Etruscan Art and Archaeology. (4) (Same as Art History M113A.) Lecture, three hours. Preparation: one course from 10, 20, 232, 233, 234, 235, 238, 284, 285, 306, 336, 361. Preparation: one classical archaeology course. Training in approaches, themes, and periods (both ancient city and receptions of city from classical antiquity to modern era) vary depending on individual instructor and topic. May be repeated for credit with topic change. P/NP or letter grading.

154. Invention of Democracy. (5) (Same as Political Science M112B.) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. May be repeated for credit with topic change. P/NP or letter grading.

130. Race, Ethnicity, Identity in Greco-Roman World. (4) Lecture, two and one half hours. Examination of construction of race and ethnic identities in Greco-Roman thought and ways that ancient texts and study of antiquity have influenced Western constructions of race. Case studies include both ethnographic constructions of other by dominant groups (e.g. invention of stereotypes like barbarian and noble savage) and experiences of members of marginalized groups within dominant cultures (e.g. Egyptian identity in Hellenistic Egypt, Greek, Syrian, and Jewish identity in Roman Egypt). P/NP or letter grading.

133. Ancient Historiography: Theory and Practice. (4) (Formerly numbered 133.) (Same as History M113C.) Lecture, three hours. Study of theory, practice, and development of writing history in cultures of ancient Greece and Rome. Focus is literary, commercial, and on questions of genre and rhetoric. Encourages appreciation for how ancient historiography relates to other ancient genres (epic, biography, oratory). Readings may draw widely from various authors, including Herodotus, Thucydides, Livy, Tacitus, and others. Letter grading.

137. Ancient Lives: Art of Biography. (4) Lecture, three hours. Study of origins, development, and practice of writing lives (biography) represented in cultures of ancient Greece and Rome. Readings include examples from Greek and Roman lives of Plutarch and lives of Roman Emperors (Caesars) by Suetonius. Comparisons with modern biographical traditions in literature and film. P/NP or letter grading.


140. Topics in History of Greek Literature. (4) Lecture, three hours. Requisite: course 10 or 40W. Investigation of specific issue in understanding of Greek literature, such as definition of one genre or evaluation of particular author. May be repeated for credit with topic change. P/NP or letter grading.

141. Topics in History of Latin Literature. (4) Lecture, three hours. Requisite: course 20 or 41W. Investigation of specific issue in interpretation of Latin literature, such as definition of one genre or evaluation of particular author. May be repeated for credit with topic change. P/NP or letter grading.

142. Ancient Epic. (4) Lecture, three hours. Requisite: one course from 10, 20, 30, 40W, or 41W, Homer’s Iliad and Odyssey, Vergil’s Aeneid, and Ovid’s Metamorphoses, studied in translation. P/NP or letter grading.

143A. Ancient Tragedy. (4) Lecture, three hours. Requisite: course 10 or 40W. Survey of tragedy from 5th-century BC works through later antiquity. P/NP or letter grading.

143B. Ancient Comedy. (4) Lecture, three hours. Requisite: course 10 or 20. Study of comedy as it developed in Greek and Roman worlds. P/NP or letter grading.

144. Topical Studies in Ancient Culture. (4) Lecture, three hours. Requisite: one course from 10, 20, 30, 40W, or 41W. Investigation of one problem in ancient culture through the examination of both Greek and Roman material. May be repeated for credit with topic change. P/NP or letter grading.
medieval, Renaissance, and modern initiators, from Aeneid to Shakespeare to Picasso and beyond. P/ NP or letter grading.


165. Ancient Athletics. (4) Lecture, three hours. Req- uisite: course 164 or 191A. Study of ancient Greek and Roman athletics and their connections with religi- on, politics, literature, and art. P/ NP or letter grading.


167. Magic in Ancient World. (4) Same as Ancient Near East 167.) Lecture, three hours; discussion, one hour (when scheduled). Requisite: course 10 or 20. Exploration of art of influencing natural course of events by occult means as practiced in ancient world at large. Special emphasis is given to superstitions and superstitious beliefs, and how they changed over time and affected the development of modern-day religions. Reflections include both modern theories about sex and history as foundation for course and broad range of ancient texts in translation. P/ NP or letter grading.

168. Sex in Ancient World. (4) Lecture, three hours. Requisite: course 10 or 20 or History 1 A. Examination of sex and gender systems of Greek and Roman cultures in ancient Mediterranean world. What Greek and Roman sex/gender systems were, how they changed over time, and difference it makes. Readings include both modern theories about sex and history as foundation for course and broad range of ancient texts in translation. P/ NP or letter grading.

170. Power and Image in Byzantium. (4) (Same as History M161C) Lecture, three hours; discussion, one hour (when scheduled). Requisites: History 116A, 116B. Designed for juniors/seniors. Study of religious, political, and ethical themes in highly central component of Byzantine Empire. Topics include criticism of emperor, iconoclast, intellectual freedom, attempts at reform. Letter grading.

175. Classics in Central and South America. (4) Lecture, three hours. Introduction to topics in classical reception through investigation of influence of Greco- Roman poetry on poetry of Central and South America of colonial period and beyond. From Homer to Vergil, poets of classical antiquity established robust tradition of epic with well-established literary tropes and nationalistic aims, cultural voice contributing to development of unified sense of national identity. Classical definition of epic genre and sense of epic as vehicle for affirming and questioning national identity persisted well beyond antiquity. Investigation of one such area by examining epic traditions of Central and South America, mediated through European models and translated into Latin American Spanish and Portuguese. P/ NP or letter grading.

180. Introduction to Classical Linguistics. (4) Lecture, three hours. Requisite: Greek 3 or Latin 3. Lin- guistic approach to Greek and Latin, including Indo- European background, etymology, pronunciation, al- phabets (sociolinguistics (dialects, bilingualism), and applications to classical literature. P/ NP or letter grading.

185. Origins and Nature of English Vocabulary. (5) Lecture, three hours. Introduction to topics in English vocabulary, from Proto-Indo-European prehistory to cur- rent slang. Topics include Greek and Latin component in English (including technical terminology), alphabet and English spelling, semantic change and word for- mation, vocabulary in literature and film. P/ NP or letter grading.

189. Advanced Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to undergraduate lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible stu- dents. Honors content noted on transcript. P/ NP or letter grading.

190. Research Colloquia in Classics. (1) Seminar, one hour. Limited to juniors/seniors. Directed to bring together students undertaking supervised tutorial research in seminar setting with one or more faculty members to discuss their own work or related work in discipline. Led by one supervising faculty member. May be repeated for credit. P/ NP or letter grading.

193. Journal Club Seminars: Classics. (1 Seminar, one hour. Limited to juniors/seniors. Intensive in- tensive study, with scheduled meetings to be arranged between faculty member and student. Assigning reading and tangible evidence of mastery of subject matter required. May be repeated for credit. Individual contract required. P/ NP or letter grading.

198A-198B. Honors Research in Classics. (2-5) Limited to junior/senior departmental honors program students. May be repeated for credit. Individual con- tract required. P/ NP or letter grading.

199. Directed Research in Classics. (2 to 4) Tutorial, two hours. Limited to juniors/seniors. Supervised individual research or investigation under guidance of faculty member. Culminating paper or project required. May be repeated for credit. Individual contract re- quired. P/ NP or letter grading.


201B. Topics in Ancient History: Roman World. (2 to 4) Seminar, three hours. Introduction to basic methods and approaches to study of ancient history by intensive examination of selected topics, including readings of ancient texts and modern scholarship. S/U or letter grading.

251A. Paleography of Latin and Vernacular Manuscripts, 900 to 1500. (4) (Same as English M215, French M210, and History M218.) Lecture, three hours; discussion, two hours. Introduction to history of Latin and vernacular manuscript book from 900 to 1500; to (1) train students to make informed judgments with regard to place and date of origin, (2) provide training in accurate reading and transcription of later medieval scripts, and (3) examine manuscript book as witness to changing society that produced it. Focus on relationship between Latin manuscripts and ver- nacular manuscripts with regard to their respective presentation of written texts. S/U or letter grading.

220A. Interfaces: Transmission of Roman Litera- ture. (2 or 4) Seminar, three hours. Examination of transmission of Latin classical literature in late antiq- uity, Middle Ages, and Renaissance to understand processes by which Latin literature has been pre- served. S/ U (2-unit course) or letter (4-unit course) grading.

244. Textual Criticism: Studies in Preparation of Critical Edition of Greek and/or Latin Texts. (2 or 4) Seminar, three hours. Different steps required in preparation of critical edition of ancient text: localizing manuscripts; collation; establishing stemma; selecting right reading on basis of knowledge of context, of lan- guage of author, and of sources; emendations; formu- lation of apparatus criticus and apparatus criticus. S/ U (2-unit course) or letter (4-unit course) grading.

246. Greek and Latin Meter. (2 or 4) Seminar, three hours. Comprehensive study of meter as it functions in classical poetry. S/ U (2-unit course) or letter (4-unit course) grading.

250. Topics in Greek and Roman Culture and Liter- ature. (2 or 4) Seminar, three hours. Interdisciplinary study on topics of ancient Greek and Roman culture and literature. May be repeated for credit with topic change. S/ U or letter grading.

251A. Seminar: Classical Archaeology—Aegean Bronze Age. (2 or 4) Seminar, three hours. S/U or letter grading.

251B. Seminar: Classical Archaeology—Greek-Ro- man Archaeology. (2 or 4) Seminar, three hours. Studies in style and iconography of various periods of Aegean, Greek, and Roman architecture. S/ U (2-unit course) or letter (4-unit course) grading.

251C. Seminar: Classical Archaeologists—Greek-Ro- man Sculpture. (2 or 4) Seminar, three hours. Studies in style and iconography of various periods of Aegean, Greek, and Roman sculpture. S/ U (2-unit course) or letter (4-unit course) grading.

251D. Seminar: Classical Archaeology—Greek-Ro- man Painting. (2 or 4) Seminar, three hours. Studies in style and iconography of various periods of Aegean, Greek, and Roman painting. May be repeated for credit. Individual contract. S/ U (2-unit course) or letter (4-unit course) grading.

252. Topography and Monuments of Athens. (2 or 4) Lecture, two or four hours. Detailed studies in to- pography and monuments of Athens, combining evi- dence of literature, inscriptions, and actual remains. S/ U or letter grading.

253. Topography and Monuments of Rome. (2 or 4) Lecture, two or four hours. Detailed studies in topog- raphy and monuments of ancient Rome, combining evidence of literature, inscriptions, and actual remains. S/ U or letter grading.

256. Topics in Ancient Religion. (2 or 4) Seminar, three hours. S/U or letter grading.

278. Graduate Colloquium in Classical Literature. (2) Seminar, three hours. Survey of basic methods of and approaches to classical scholarship, including textual criticism, literary interpretation and theory, hermeneutics, interdisciplinary studies, and computer
applications to classics. Emphasis varies from year to year, depending on instructor(s). May be repeated for credit with topic change. S/U grading.

288. Literary Theory. (2 or 4) Discussion, three hours. Designed for graduate students. Introduction to chief texts in literary theory and criticism for readers of classical language, with application to classical texts. S/U or letter grading.

375. Teaching Apprentice Practicum. (1 to 4) Seminar, to be arranged. Preparation: apprentice personnel employment as a teaching assistant, associate, or fellow. Teaching apprenticeship under active guidance and supervision of regular faculty member responsible for curriculum and instruction at UCLA. May be repeated for credit. S/U grading.

495. Teaching Classics. (2) Seminar, two hours. Normally to be taken by all graduate students in term before or during their first assignments as teaching assistants. Seminar/workshop in various pedagogical issues and strategies in preparation for teaching classical civilization, Greek, and/or Latin undergraduate courses. Readings and group discussions in topics related to teaching in field of classics. May not be applied toward MA or PhD course requirements. S/U grading.

501. Cooperative Program. (2 to 8) Tutorial, to be arranged. Preparation: consent of UCLA adviser and graduate dean, and host campus instructor, department chair, and graduate dean. Used to record enrollment of UCLA students in courses taken under cooperative arrangements with USC. S/U grading.

596. Directed Individual Study or Research. (2 to 8) Tutorial, to be arranged. S/U grading.

597. Study for MA Comprehensive Examination or PhD Qualifying Examinations. (2 to 8) Tutorial, to be arranged. S/U or letter grading.


Greek

Lower-Division Courses

1. Elementary Greek. (5) Lecture, three hours; discussion, two hours. P/NP or letter grading.

2. Elementary Greek. (5) Lecture, three hours; discussion, two hours. Enforced requisite: course 1. P/NP or letter grading.

3. Elementary Greek. (5) Lecture, three hours; discussion, two hours. Enforced requisite: course 2. P/NP or letter grading.

8A-8B-8C. Elementary Modern Greek. (4–4–4) Lecture, three hours. Enforced requisite to 8B, which is enforced requisite to 8C. Introductory modern Greek sequence, with emphasis on spoken modern Greek. P/NP or letter grading.

8G. Reading Scholarly Modern Greek. (4) Lecture, two and one half hours. Designed for students who want to develop literary competence in order to read modern Greek scholarly texts. No prior knowledge of modern Greek is required. Covers grammatical concepts and forms necessary to comprehend written academic Greek. Students gain familiarity with various academic genres in Greek (among others, articles, chapters, reviews, lecture transcriptions), Emphasis on grammar and reading strategies that enable location, selection, and comprehension of texts central to research needs. Students are familiarized with major stylistic features of contemporary academic modern Greek, and consolidate their competence through reading, translating, and writing activities. Familiarization with basic aspects of modern Greek life and culture. P/NP or letter grading.

8A-8B-8C. Intermediate Modern Greek. (4–4–4) Lecture, three hours. Enforced requisite: course 8C. Course 9A is enforced requisite to 9B, which is enforced requisite to 9C. Intermediate-level program in modern Greek language study from communicative and task-based approach. Continued development of student understanding and use of Greek syntax and morphology through oral and written activities, reading, and listening. Students master basic communicative skills, communicate in everyday real-life situations, comprehend simple passages, announcements, and advertisements, master basic rules of modern Greek grammar and syntax, read fluently, and write accurately. P/NP or letter grading.

115. Elementary Modern Greek. (5) Lecture, 18 to 19 hours. Requisite: course 9A. Introduction to principles of speaking, reading, and writing modern (demotic) Greek. Offered in summer only. P/NP or letter grading.

116. Intensive First-Year Greek. (12) Lecture, 19 hours. Eight-week intensive introduction to Greek language equivalent to courses 1, 2, and 3. Offered in summer only. P/NP or letter grading.

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP or letter grading.

20. Intermediate Greek. (4) Lecture, three hours; discussion, one hour (when scheduled). Requisite: course 3 or 16. Formal review of Greek grammar and syntax and development of skills in reading original texts of Greek prose. Readings selected to introduce literature and culture of ancient Greece. P/NP or letter grading.

89H. Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to lower-division lecture course or discussion course. Enforced requisite to other courses in Greek 100 series. Students must be in good academic standing and enrolled in minimum of 12 units (excluding this course). Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP grading.

89HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to lower-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

99. Student Research Program. (1 to 2) Tutorial (supervised research or other scholarly work), three hours per week per unit. Entry-level research for lower-division students under guidance of faculty mentor. Students must be in good academic standing and enrolled in minimum of 12 units (excluding this course). Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP grading.

100. Readings in Greek Prose and Poetry. (4) Lecture, three hours. Requisite: course 100. Introduction to developing skills of reading longer, continuous passages of original Greek prose and/or poetry texts, with attention to literary and cultural background. Course is normally requisite to other courses in Greek 100 series. May be repeated for credit with change of assigned readings and with consent of instructor. P/NP or letter grading.


102. Lyric Poets. (4) Lecture, three hours. Requisite: course 100. Selections from Archilochus to Bacchylides, P/NP or letter grading.

103. Aeschylus. (4) Lecture, three hours. Requisite: course 100. P/NP or letter grading.

104. Sophocles. (4) Lecture, three hours. Requisite: course 100. P/NP or letter grading.


108. Works and Days, with emphasis on Hesiod’s place in Greek literature and his role in transmission of Greek mythology. P/NP or letter grading.

110. Study of Greek Prose. (4) Lecture, three to four hours. Requisite: course 100. Work in sight reading and grammatical analysis of Attic prose texts; writing Attic prose. P/NP or letter grading.

111. Herodotus. (4) Lecture, three hours. Requisite: course 100. P/NP or letter grading.

112. Thucydides. (4) Lecture, three hours. Requisite: course 100. P/NP or letter grading.


115. Xenophon. (4) Lecture, three hours. Requisite: course 100. Reading of one major work of Xenophon—Memorabilia, Cyropaedia, Anabasis, Helenica, or Oeconomic—s in Greek—P/NP or letter grading.

121. Plato. (4) Lecture, three hours. Requisite: course 100. P/NP or letter grading.


133. Readings in Byzantine Literature. (4) Lecture, three hours. Requisite: course 132. Topics vary from year to year and include Procopius, Agathias, Michael Psellus, Alexiad of Anna Comnena, and Digenis Akritas. P/NP or letter grading.

189. Advanced Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to undergraduate lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. Letter grading.

193. Directed Research in Greek. (2 to 4) Lecture, three hours. Enforced requisite to other courses in Greek 100 series. May be repeated for credit with mass change of assigned readings and with consent of instructor. P/NP or letter grading.

199H. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to upper-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

197. Individual Studies in Greek. (2 to 4) Tutorial, two hours. Limited to juniors/seniors. Individual intensive study, with scheduled meetings to be arranged between faculty member and student. Assigned reading and tangible evidence of mastery of subject matter required. May be repeated for credit. Individual contract required. P/NP or letter grading.

200-200B-200C. History of Greek Literature. (4–4–4) Lecture, three hours. Lectures on history of Greek literature, supplemented by reading of Greek texts in original language. Each course may be taken independently for credit. S/U or letter grading.

Graduate Courses

200A-200B-200C. History of Greek Literature. (4–4–4) Lecture, three hours. Lectures on history of Greek literature, supplemented by reading of Greek texts in original language. Each course may be taken independently for credit. S/U or letter grading.
231. Imperial Greek Literature. (2 or 4 Seminar) Three hours. Study of Greek literature of Roman Empire with attention to various authors, genres, and themes. S/U or letter grading.


241. Greek Epigraphy. (2 or 4 Seminar) Three hours. Survey of Greek historical inscriptions, chiefly Attic. S/U (2-unit course) or letter (4-unit course) grading.


243. Mycenaean Greek. (2 or 4 Seminar) Three hours. Script, language, and grammar of Linear B inscriptions; their relevance to ancient Greek linguistic and cultural history. S/U or letter grading.

244. Greek Papyrology. (2 or 4 Seminar) Three hours. Preparation: reading knowledge of Greek. Introduction to Greek papyri, considered both as historical documents and as carriers of literature. S/U (2-unit course) or letter (4-unit course) grading.

245. Greek Palaeography. (2 or 4 Seminar) Three hours. Studies in development of book hand in Greek manuscripts earlier than invention of printing. S/U (2-unit course) or letter (4-unit course) grading.

250. Topical Studies of Ancient Greece. (2 or 4 Lecture) Three hours. Advanced study of some aspect of ancient Greek language, literature, and/or culture. May be repeated for credit with topic change. S/U (2-unit course) or letter (4-unit course) grading.

596. Directed Individual Study or Research. (2 to 8) Tutorial, to be arranged. S/U grading.

597. Study for MA Comprehensive Examination or PhD Qualifying Examinations. (2 to 8) Tutorial, to be arranged. S/U grading.


Latin

Lower-Division Courses

1. Elementary Latin. (5) Lecture, three hours; discussion, two hours. Prerequisites: Reading of one or more books from first half of Ae neid especially for students with only limited experience in reading Latin poetry. May be repeated for credit with change in reading and consent of instructor. S/U or letter grading.

1G. Elementary Latin for Graduate Students. (No credit) Lecture, eight hours. Concurrently scheduled with course 14. No grading.

2. Elementary Latin. (5) Lecture, three hours; discussion, two hours. Enforced requisite: course 1. P/NP or letter grading.


10. Elementary Latin: Comprehensive Review. (4) Lecture, three hours; discussion, one hour. May be repeated for credit with change in reading and consent of instructor. P/NP or letter grading.

12. Advanced Vergil. (4) Lecture, three hours. Requisite: course 10. Reading and discussion of Vergil's Eclogues, Georgics, and/or second half of Aeneid. May be repeated for credit with change in readings and consent of instructor. P/NP or letter grading.

105A. Beginning Vergil: Selections from Aeneid I-IV. (4) Lecture, three hours. Requisite: course 100. Reading of one or more books from first half of Aeneid, especially for students with only limited experience in reading Latin poetry. May be repeated for credit with change in readings and consent of instructor. S/U or letter grading.

105B. Advanced Vergil. (4) Lecture, three hours. Requisite: course 105A. Reading and discussion of Vergil's Eclogues, Georgics, and/or second half of Aeneid. May be repeated for credit with change in readings and consent of instructor. S/U or letter grading.


108. Roman Elegy. (4) Lecture, three hours. Requisite: course 105A. Reading and discussion of Horace's Odes and Epodes. May be repeated for credit with change in readings and consent of instructor. P/NP or letter grading.

109. Roman Satire. (4) Lecture, three hours. Requisite: course 100. Readings from author(s) of Roman satire, including Horace, Persius, and Juvenal, or related satric texts. May be repeated for credit with change in readings and consent of instructor. P/NP or letter grading.


111. Livy. (4) Lecture, three hours. Requisite: course 100. P/NP or letter grading.

112. Tacitus. (4) Lecture, three hours. Requisite: course 100. P/NP or letter grading.

Graduate Courses


201. Roman Epic Tradition. (2 or 4 Seminar) three hours. Close study of one epic poet other than Vergil (e.g., Ennius, Lucan, Valerius Flaccus, Statius, Silius Italicus), with attention to literary tradition of epic. May be repeated for credit with topic change. S/U (2-unit course) or letter (4-unit course) grading.

202. Seminar: Catullus. (2 or 4 Seminar) three hours. Detailed consideration of entire Catullan corpus. S/U (2-unit course) or letter (4-unit course) grading.

203A. Elegiac Poetry. (2 or 4 Lecture) three hours. S/U (2-unit course) or letter (4-unit course) grading.

203B. Propertius. (2 or 4 Lecture) three hours. Course 203A is not requisite to 203B. S/U (2-unit course) or letter (4-unit course) grading.

204A-204B. Vergil's Aeneid. (2 or 4 each) Lecture, three hours. Course 204A is requisite to 204B. S/U (2-unit course) or letter (4-unit course) grading.

205A. Seminar: Vergil's Bucolics. (2 or 4 Seminar) three hours. S/U (2-unit course) or letter (4-unit course) grading.

205B. Seminar: Vergil's Georgics. (2 or 4 Seminar) three hours. Course 205A is not requisite to 205B. Close study of Vergil's text; careful evaluation of influential criticism on poem, much of it recent; examination of work's place within tradition of rural poetry. S/U (2-unit course) or letter (4-unit course) grading.

206. Horace. (2 or 4 Lecture) three hours. S/U (2-unit course) or letter (4-unit course) grading.

207. Roman Comedy. (2 or 4 Seminar) three hours. Survey of history of Roman comedy. S/U (2-unit course) or letter (4-unit course) grading.

208. Ovid. (2 or 4 Seminar) three hours. S/U (2-unit course) or letter (4-unit course) grading.

209. Seminar: Roman Satire. (2 or 4 Seminar) three hours. Detailed study of one individual satirist, with attention to his position in development of satirical genre in Roman literature. Choice of author varies from year to year. Close study of text, of characteristics of writer as social critic and artist, and of contemporary literary and social environment. S/U (2-unit course) or letter (4-unit course) grading.


211A-211B-211C. Seminars: Roman Historians. (2 or 4 each) Seminar, three hours. Study of considerable portions of writings of following historians. Each course may be taken independently for credit. S/U (2-unit course) or letter (4-unit course) grading. 211A. Sallust; 211B. Livy; 211C. Tacitus.

212. Ancient Biography: Roman Lives. (2 or 4 Seminar) three hours. Study of biography in ancient Rome. Literary survey or focused readings on lives of Cornelius Nepos, Suetonius, Tacitus, or imperial chroniclers of 4th century CE. S/U (2-unit course) or letter (4-unit course) grading.

213. Roman Rhetoric. (2 or 4 Seminar) three hours. Close study of one or several Roman rhetorical works (e.g., Rhetorica ad Herennium, Cicero's de Oratore, Seneca's Contraversiae or Suasoriae, Quintilian's Institutiones), with attention to its place in rhetorical tradition. May be repeated for credit with topic change. S/U (2-unit course) or letter (4-unit course) grading.

214. Seminar: Roman Orator. (2 or 4 Seminar) three hours. Works such as Petronius' Satyricon and Apuleius' Metamorphoses; study of literary problems. May be repeated for credit with topic change. S/U (2-unit course) or letter (4-unit course) grading.

215. Cicero: De Naturre Deorum. (2 or 4 Lecture) three hours. Course 221A is not requisite to 221B. S/U (2-unit course) or letter (4-unit course) grading.

216. Roman Stoicism. (2 or 4 Seminar) three hours. Detailed study of one work of prose or poetry by younger Seneca. May be repeated for credit with topic change. S/U (2-unit course) or letter (4-unit course) grading.

217. Seminar: Roman Stoicism. (2 or 4 Seminar) three hours. Detailed study of one work of prose or poetry by younger Seneca. May be repeated for credit with topic change. S/U (2-unit course) or letter (4-unit course) grading.

218. Sallust. (2 or 4 Lecture) three hours. S/U (2-unit course) or letter (4-unit course) grading.

219. Seminar: Roman Stoicism. (2 or 4 Seminar) three hours. Detailed study of one work of prose or poetry by younger Seneca. May be repeated for credit with topic change. S/U (2-unit course) or letter (4-unit course) grading.
Cluster Program
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Jared McBride, PhD (History, Undergraduate Education Initiatives)
Moana L. McCiellan, PhD (Environment and Sustainability)
Vilma Ortiz, PhD (Sociology)
Michelle F. Rensel, PhD (Society and Genetics)
Asa Sayeed, PhD (Near Eastern Languages and Cultures)

Scope and Objectives
Cluster courses are an option for satisfying both general education and Writing II requirements. Clusters are yearlong, collaboratively taught, interdisciplinary courses that focus on a topic of timely importance, such as the global environment or intra-racial dynamics. The courses are taught by some of the most distinguished UCLA faculty members and seasoned graduate students. During fall and winter quarters, students attend lecture courses and small discussion sections and/or laboratories. In spring quarter, the same students enroll in one of a number of satellite seminars dealing with topics related to the cluster theme.

Freshman clusters are designed to strengthen the writing, quantitative reasoning, critical thinking, and information literacy skills that students need to excel at UCLA. At the conclusion of the entire yearlong cluster, students complete 40 to 50 percent of their general education course requirements and fulfill the lower-division writing requirement. Cluster students are eligible for three terms of honors credit, with the spring quarter seminar granting Honors College credit.

For the current cluster course offerings and general education credit, refer to the Cluster Program website.

Clusters
Lower-Division Courses
M1A-M1B-M1CW. Food: Lens for Environment and Sustainability. (6–6–6) (Formerly numbered General Education Clusters M1A-M1B-M1CW) Course M1A is enforced requisite to M1B, which is enforced requisite to M1CW. Limited to first-year freshmen. Letter grading.

M1A-M1B. Lecture, three hours; discussion, two hours. Food as lens for local and global environmental and sustainability issues. Integration of environmental, social, economic, and technological solutions for fair, sustainable, and healthy food production, food security, and access. Focus on human impacts on Earth’s biological and physical systems, including how food production and consumption contributes to, and is impacted by, global problems, including climate change, pollution, and overpopulation. Laboratory exercises included in discussions. M1CW. Special Topics. Seminar, three hours. Enforced requisite: course M1B. Examination of specialized environmental and sustainable topics as they relate to food, including air, water, biodiversity, climate change, food access, food security, and health. Required for M1A.

20A-20B-20CW. Interacial Dynamics in American Culture and Society. (6–6–6) (Formerly numbered General Education Clusters 20A-20B-20CW) Course 20A is enforced requisite to 20B, which is enforced requisite to 20CW. Limited to first-year freshmen. Letter grading.

20A-20B. Lecture, three hours; discussion, two hours. Focus on nature and meaning of race in American society through study of history, literature, and law. Consideration, among other topics, of construction of race as social and cultural category among two or more groups and exploration of ways in which race has shaped understanding of American citizenship.

20CW. Special Topics. Seminar, three hours. Enforced requisite: course 20B. Consideration of how experience, debates, and issues of race are represented and understood in historical, legal, cinematic, and literary contexts. Satisfies Writing II requirement.

21A-21B-21CW. History of Modern Thought. (6–6–6) (Formerly numbered General Education Clusters 21A-21B-21CW) Course 21A is enforced requisite to 21B, which is enforced requisite to 21CW. Limited to first-year freshmen. Letter grading.

21A-21B. Lecture, three hours; discussion, two hours. Introduction to key issues in humanities and social sciences through reading of prominent social theories of past four centuries. Consideration of writers from Rousseau and Voltaire to Beckett and Picasso, and examination of social, cultural, and political contexts and implications of academic specialities for which their work is fundamental.

21CW. Special Topics. Seminar, three hours. Enforced requisite: course 21B. Examination of cross-section of classical and modern social questions which shape them. Satisfies Writing II requirement.

22A-22B-22CW. Toward World Economy: Perils and Promise of Globalization. (5–5–5) (Formerly numbered General Education Clusters 22A-22B-22CW) Course 22A is enforced requisite to 22B, which is enforced requisite to 22CW. Limited to first-year freshmen. Letter grading.

22A-22B. Lecture, three hours; discussion, two hours. Exploration of causes and mechanisms of globalization, with emphasis on historical and economic contexts and functional consequences. Critical examination of globalization theories, international institutions of trade, finance, governance, and overall impact of globalization on human society.

22CW. Special Topics. Seminar, three hours. Enforced requisite: course 22B, and English Composition 3 or 3H or English as a Second Language 36. Topics may include global governance, development, and health. Satisfies Writing II requirement.

23A-23B-23CW. Inside Performing Arts: Interdisciplinary Exploration of Performance in Society and Culture. (5–5–5) (Formerly numbered General Education Clusters 23A-23B-23CW) Course 23A is enforced requisite to 23B, which is enforced requisite to 23CW. Limited to first-year freshmen. Letter grading.

23A-23B. Lecture, four hours; discussion, two hours. Introduction to historical development and evolution of performing arts, aesthetic theories and practices, and political, social, and cultural contexts within which performance has evolved. 23CW. Special Topics. Seminar, three hours. Enforced requisite: course 23B, and English Composition 3 or 3H or English as a Second Language 36. Topics include origins and ideas of performance, art and performance, and music as cultural and social transformations.


24A-24B. Lecture, three hours; discussion, two hours. Exploration of ways in which work has been transformed over last century, impact of this transformation on working people, and role of labor movement as force for social justice. 24CW. Special Topics. Seminar, three hours. Enforced requisite: course M24B. Topics include labor law/history, gender, race, and workplace. Satisfies Writing II requirement.


25A-25B. Lecture, three hours; discussion, two hours. Comprehensive exploration of historical evolution of popular East Asian cultural and interrelationship of East Asian politics, social life, and economic and urban cultural expression. 25CW. Special Topics. Seminar, three hours. Enforced requisite: course 25B. In-depth analysis of issues in historical and contemporary East Asian popular culture. Satisfies Writing II requirement.

26A-26B-26CW. Poverty and Health in Latin America. (6–6–6) (Formerly numbered General Education Clusters 26A-26B-26CW) Course 26A is enforced requisite to 26B, which is enforced requisite to 26CW. Limited to first-year freshmen. Letter grading.

26A. Lecture, three hours; discussion, two hours. Introduction to social determinants of health, with focus on cultural, historical, socioeconomic, public health, medical, political, and artistic context of poverty in modern Latin America and on different national, and cultural realities. Satisfies Writing II requirement.

26B. Lecture, three hours; discussion, two hours. Exploration from health inequities and possible solutions to promote improved health outcomes and to social determinants of health illustrated through examples of current programs and policies. Major areas for addressing health inequity include governance, community action, social justice and human rights movements, health sector and public health programs, and global priorities.

Introduction to tools to promote health, such as service delivery, workforce, information systems, access to medicines, health systems financing, and health systems governance. 26CW. Special Topics. Seminar, three hours. Enforced requisite: course 26B. Students meet weekly in small group seminars based on topics related to course theme to allow them to study, discuss, and then generate policy solutions to create a more equitable healthcare in Latin America. Focus on one particular area of Latin America or one local Latin American community to reflect field study sites to eventually be offered and serve as preparation for summer field study component. Satisfies Writing II requirement.

27A-27B-27CW. Global Islam. (6–6–6) Course 27A is enforced requisite to 27B, which is enforced requisite to 27CW. Introduction to Islam, immensely diverse global tradition which is second largest religion. Study of Islam and Muslims within framework of study of global religious traditions and emphasis on profound diversity of localized belief and practice found across world. Examination of Islam’s evolution across 15 centuries, from late antiquity—when it emerged as localized religion in Central Asia—to modern era where it is practice from US to Indonesia. Concentration on broad analytical categories in study of religion such as text, culture, history, and prophecy. Students transition to more complex analyses through chronological overview of Islamic history. Study of case studies of Muslim global networks in arenas such as art, music, literature, and political thought. Letter grading.

27A-27B. Lecture, three hours; discussion, one hour. 27CW. Special Topics. Seminar, three hours. Enforced requisite: course 27B. Satisfies Writing II requirement.

30A-30B-30CW. Never-Ending Stories: Multidisciplinary Perspectives on Myth and Folktale. (6–6–6) (Formerly numbered General Education Clusters 30A-30B-30CW) Course 30A is enforced requisite to 30B, which is enforced requisite to 30CW. Limited to first-year freshmen. Letter grading.

30A-30B. Lecture, three hours; discussion, two hours. Exploration in depth of particular mythological traditions, aspects of storytelling, role of myth in culture, society, and/or art,
and contributions of various disciplines to study of myth.

30CW. Special Topics. Seminar, three hours. Enforced requisite: course 30B. Topics may include myth and modern art (including literature, music, and film), myth and ritual, oral tradition and orality, myth and political ideology, myth and science, hero and trickster, and myths of creation. Satisfies Writing II requirement.

40A-40B-40CW. Chinese Classics, Their Legacy in East Asia, and Reimagination in Modern Times. (6–6–6) (Formerly numbered General Education Clusters 40A-40B-40CW) Course 40A is enforced requisite to 40B, which is enforced requisite to 40CW. Limited to first-year freshmen. Letter grading. 40A-40B-40CW. Course 40A, three hours; discussion, two hours. Learning in traditional China was defined through mastery of canon of classic texts that students memorized as part of their education. These classics were also taught in Vietnam, Japan, and Korea, and served to create cultural ties across East Asia. Many more texts came to be considered classics—works of enduring value, read by large numbers of people across centuries, including religious scriptures, legal codes, novels, paintings, and performances. Exploration of how Chinese classics have been used and reimagined in different places and times is one enduring feature of these texts and cultural artifacts. Emphasis on how these works were interpreted throughout East Asia, relationship with past, and how shared history is seen as informing present. Satisfies Writing II requirement. 40CW. Special Topics. Seminar, three hours. Enforced requisite: course 40B. In-depth examination of Chinese classic texts and their reimagination in modern times. Satisfies Writing II requirement.

48A-48B-48CW. Political Violence in Modern World: Causes, Cases, and Consequences. (6–6–6) Course 48A is requisite to 48B, which is requisite to 48CW. Limited to first-year freshmen. Letter grading. 48A-48B-48CW. Lecture, three hours; discussion, two hours. In-depth examination of political causes, dynamics, and consequences of political violence. Political violence can include anything from extra-legal warfare, ethnic cleansing and political violence. Political violence can include any form of political violence, genocide, Readings of theoretical and empirical works from history, comparative literature, sociology, political science, psychology, and more. Employs art, film, literature, diaries, memoirs, and news media to encourage critical thinking about political violence. 48CW. Special Topics. Seminar, three hours. Enforced requisite: course 48B. In-depth examination of political violence. Satisfies Writing II requirement.

60A-60B-60CW. America in Sixties: Politics, Society, and Culture, 1954 to 1974. (6–6–6) (Formerly numbered General Education Clusters 60A-60B-60CW) Course 60A is enforced requisite to 60B, which is enforced requisite to 60CW. Limited to first-year freshmen. Letter grading. 60A-60B-60CW. Lecture, three hours; discussion, two hours. In-depth exploration of U.S. society from Brown versus Board of Education (1954) to resignation of Nixon. Topics include civil rights, Great Society, anti-Vietnam war movement, political and artistic counter cultures, and changes in technology, law, and media. 60CW. Special Topics. Seminar, three hours. Enforced requisite: course 60B. In-depth examination of political and cultural issues affecting U.S. society. 1954 to 1974. Satisfies Writing II requirement.

66A-66B-66CW. Los Angeles: The Cluster. (6–6–6) (Formerly numbered General Education Clusters 66A-66B-66CW) Course 66A is enforced requisite to 66B, which is enforced requisite to 66CW. Limited to first-year freshmen. Letter grading. 66A-66B-66CW. Lecture, three hours; discussion, two hours. In-depth look at city in which UCLA is located. Drawing on concerns of Los Angeles as laboratory, students engage in systemic study of urban area that is to be their home for next several years. As they do, they come to understand peoples, spaces, politics, and cultures of Los Angeles and its metropolitan region in both present and past, as well as Los Angeles’ place in urban world. 66CW. Special Topics. Seminar, three hours; discussion, two hours. Learning in traditional China was defined through mastery of canon of classic texts that students memorized as part of their education. These classics were also taught in Vietnam, Japan, and Korea, and served to create cultural ties across East Asia. Many more texts came to be considered classics—works of enduring value, read by large numbers of people across centuries, including religious scriptures, legal codes, novels, paintings, and performances. Exploration of how Chinese classics have been used and reimagined in different places and times is one enduring feature of these texts and cultural artifacts. Emphasis on how these works were interpreted throughout East Asia, relationship with past, and how shared history is seen as informing present. Satisfies Writing II requirement. 70A-70C-70CW. Evolution of Cosmos and Life. (6 each) ( Formerly numbered General Education Clusters 70A-70C-70CW) Course 70A is enforced requisite to 70B, which is enforced requisite to 70CW. Limited to first-year freshmen. Letter grading. 70A-70B-70C-70CW. Lecture, three hours; discussion, two hours. Use of concept of evolution, as it applies to biological organisms, Earth, solar system, and universe itself, to introduce students to both life and physical sciences. Examination of evolution of universe, galaxy, solar system, and Earth in course 70A; for course 70B, life on Earth; course 70CW. Special Topics. Seminar, three hours. Enforced requisite: course 70D. In-depth examination of various issues of evolution in cosmos from life sciences perspective. Satisfies Writing II requirement.

717A-717B-717CW. Biotechnology and Society. (6–6–6) (Formerly General Education Clusters 717A-M717B-717CW) Course 717A is an enforced requisite to 717B, which is enforced requisite to 717CW. Limited to first-year freshmen. Letter grading. 717A-717B-717CW. Lecture, three hours; discussion, two hours. Exploration of methods, applications, and implications of biotechnology and of ethical, social, and policy implications of biotechnology in underpinnings. 717CW. Special Topics. Seminar, three hours. Enforced requisite: course 717B. Topics include in-depth examination of ethics and human gene expression, bioengineering, sex and biotechnology. Satisfies Writing II requirement.

727A-727B-727CW. Sex from Biology to Gendered Society. (6–6–6) (Formerly numbered General Education Clusters 727A-727B-727CW) (Same as Course 727) (Formerly General Education Clusters 717A-M717B-717CW, and Sociology 727A-727B-727CW, and Sociology 727A-727B-727CW) Course 727A is an enforced requisite to 727B, which is enforced requisite to 727CW. Limited to first-year freshmen. Letter grading. 727A-727B-727CW. Lecture, three hours; discussion, two hours. Examination of many ways in which sex and sexual identity shape and are shaped by biological and social forces, from biophysical to sociocultural perspectives on anthropology, biology, medicine, and sociology. Specific topics include biological origins of sex differences, intersex, gender identity, gender inequality, homosexuality, sex differences, sex/gender and law, and politics of sex research. 727CW. Special Topics. Seminar, three hours. Enforced requisite: course 727B. Topics may include politics of reproduction, sexuality, sexual identity, social construction of gender, and reproductive technologies. Satisfies Writing II requirement.

73A-73B-73CW. Mind over Matter: History, Science, and Philosophy of Brain. (6-6-6) (Formerly numbered General Education Clusters 73A-73B-73CW) Course 73A is enforced requisite to 73B, which is enforced requisite to 73CW. Limited to first-year freshmen. Letter grading. 73A-73B-73CW. Lecture, three hours; discussion, two hours. Human brain is most complex structure in universe and last major structure in universe. Satisfies Writing II requirement.


97A. Cluster Colloquia: Variable Topics. (1) (Formerly numbered General Education Clusters 97A.) Seminar, one hour. Variable topics course designed for students who have completed one GE cluster. Study, through small-group discussion and projects, of selected topics related to one cluster theme or topic. Consult Schedule of Classes for topics and instructors. May be repeated once for credit. P/NP grading.

Upper-Division Courses

180A. Cultural Heritage and Representation of Identity: Special Topics. (5) Seminar, three hours. Enforced requisite: course 180A. Topics include biological origins of human culture are used by their creators to fashion and refashion their identities over time and in different spaces. Introduction to multidisciplinary perspectives on human cultures and associated objects they create, different issues attended to in interdisciplinary perspectives on human cultures and associated objects they create, different issues attended to in interdisciplinary perspectives on human cultures and associated objects they create, different issues attended to in interdisciplinary perspectives on human cultures and associated objects they create, different issues attended to in interdisciplinary perspectives on human cultures and associated objects they create, different issues attended to in interdisciplinary perspectives on human cultures and associated objects they create.

180B. Cultural Heritage and Representation of Identity: Special Topics. (5) Seminar, three hours. Enforced requisite: course 180A. How tangible and intangible materials of human culture are used by their creators to fashion and refashion their identities over time and in different spaces. Introduction to multidisciplinary perspectives on human cultures and associated objects they create, different issues attended to in interdisciplinary perspectives on human cultures and associated objects they create, different issues attended to in interdisciplinary perspectives on human cultures and associated objects they create, different issues attended to in interdisciplinary perspectives on human cultures and associated objects they create, different issues attended to in interdisciplinary perspectives on human cultures and associated objects they create, different issues attended to in interdisciplinary perspectives on human cultures and associated objects they create, different issues attended to in interdisciplinary perspectives on human cultures and associated objects they create, different issues attended to in interdisciplinary perspectives on human cultures and associated objects they create, different issues attended to in interdisciplinary perspectives on human cultures and associated objects they create, different issues attended to in interdisciplinary perspectives on human cultures and associated objects they create.
The department also offers a Doctor of Philosophy (PhD) degree in Communication. The program’s core areas of specialization include: communication and cognition, political communication, and computational communication. Students are trained in the core of communication scholarship by engaging in coursework and research that aligns with the broader discipline.

Undergraduate Study

Communication BA

Students fulfilling the major in Communication must complete the seven required lower-division courses and a minimum of 10 or 11 upper-division courses as set forth below. Enrollment in the major is limited. Admission to the major is by application to the committee in charge. Applications are available on the department website to regularly enrolled UCLA students during spring quarter.

Learning Outcomes

The Communication major has the following learning outcomes:

- Demonstrated mastery of substantive areas of the field, including mass communication and media institutions, interpersonal communication, communication technology and digital systems, and political and legal communication
- Placement of particular communication events or examples in the context of broader patterns of human activity
- Critical evaluation of arguments based on evidence
- Design and implementation of original research projects
- Completion, using acquired knowledge and skills, of a project that demonstrates core competencies in the field
- Active participation in learning-in-practice opportunities
- Evaluation and critique of oral presentations
- Demonstrated mastery of conceptualization, formulation, and oral presentation of the student’s own ideas

Preparation for the Major

Students are encouraged but not required to complete as many lower-division preparation for the major courses as possible before admission to the program.

Required: Communication 1, 10, one course selected from Anthropology 4, Linguistics 1, M4, or Philosophy 23, one statistics course from Economics 41 or Statistics 10. Three additional courses must be selected from Political Science 40, Psychology 10, Sociology 1, and Economics 1 or 5 or Political Science 30.

Transfer Students

Transfer applicants to the Communication major with 90 or more units must complete at least four of the following seven lower-division required courses: Communication 10 or one interpersonal communication and one mass communication course, one public address course, one linguistics course, one statistics course, and three courses from psychology, American government, sociology, and microeconomics or political economy.

Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

The Major

Students must complete 10 or 11 upper-division courses. The practicum requirement can be satisfied by a course that also satisfies a core or an additional area elective course requirement.

Required Core Courses: Communication 100, 150.

Required Area Courses: A total of eight courses from the following four areas, including at least one core course in each area:

Communication Technology and Digital Systems—Core courses: Communication 129, 151, 154, 155, 156, 158; elective courses: Communication 157, 188C, 191C


Political and Legal Communication—Core courses: Communication 101, 160, 162, 170; elective courses: Communication 102, 163, 164, 168, 171, M176, 178, 1882, 191D, Political Science M141A, 141B (or Sociology 133), 141C, 141E.

Required Practicum Course: One course from Communication 101, 102, 103A, 103B, 104, 109, 110, 116, M117, 155, 160, M176, 188E, or 191E.

Honors Program

The departmental honors program provides exceptional students an opportunity for advanced research and study, under the guidance of a faculty member, that leads to the completion of an honors thesis. To qualify for graduation with departmental honors, students must (1) complete all requirements for the major; (2) have a cumulative grade-point average of 3.6 or better in upper-division coursework in the major and an overall GPA of 3.3 or better in all completed UIC coursework, (3) complete Communication 198A, 198B, and 198C, and (4) produce a completed satisfactory honors thesis (as determined by a recommendation of their thesis adviser and final approval by the department chair). Contact the student affairs officer for more information.

Computing Specialization

Majors in Communication may select a specialization in Computing by (1) satisfying all the requirements for a bachelor’s degree in the major, (2) completing Program in Computing 10A and 10B, and (3)
Graduate Study
Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Division website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Graduate Degrees
The Department of Communication offers the Master of Science (MS) and Doctor of Philosophy (PhD) degrees in Communication.

Communication

Lower-Division Courses
1. Principles of Oral Communication. (4) (Formerly numbered Communication Studies 1.) Lecture, four hours. Enforced requisite: satisfaction of Entry-Level Writing requirement. Examination of foundations of communication and public speaking. Consideration of number of basic theories related to study of communication and development of skills to enable composition and delivery of speeches in accordance with specific rhetorical concepts. Improvement of ability to analyze, organize, and critically think about communicative messages while becoming better equipped to articulate ideas. P/NP or letter grading.

1A. Public Speaking for Nonnative Speakers. (4) (Formerly numbered Communication Studies 1A.) Lecture, four hours. Designed for nonnative speakers of English and including vocabulary and pronunciation practice. Focus on theory and practice of public speaking, including selection of content, organization of ideas, language, and delivery. Practice in extemporaneous and manuscript speaking. Critical analysis of speeches in both contemporary and historical settings. Special emphasis on public relations, evaluations, practice of both public and private speaking skills. Offered in summer only. P/NP or letter grading.

1B. Learning American English and Culture from Movies. (4) (Formerly numbered Communication Studies 1B.) Lecture, four hours. Primer on colloquial English and beyond. Introduction to American culture, values, and customs. Critical analysis of contemporary customs and values offered through guided immersion in popular cinema. Offered in summer only. P/NP or letter grading.

10. Introduction to Communication. (6) (Formerly numbered Communication Studies 10.) Lecture, four hours; discussion, one hour. Introduction to study of interpersonal and mass communication using interdisciplinary approach. Exploration of basic methods and principles utilized in existing, as well as in developing, communication programs. Exploration of theoretical and methodological approaches that bridge major areas of communication study. P/NP or letter grading.

101. Freedom of Communication. (4) (Formerly numbered Communication Studies 101.) Lecture, four hours. Analysis of historical, political, and philosophical elements entailed in rights of free expression, access to audience, and access to information. Study of court decisions governing freedom of communication in U.S. P/NP or letter grading.

Upper-Division Courses
100. Communication Science. (4) (Formerly numbered Communication Studies 100.) Lecture, four hours. Examination of fundamental issues in communication sciences. Exploration of theoretical and methodological approaches that bridge major areas of communication study. P/NP or letter grading.


103A-103B. Forensics. (4-4) (Formerly numbered Communication Studies 103A-103B.) Lecture, three hours. Participation in on-campus and intercollegiate debate activities, including preparation and development of data analysis, interpretation, and argumentation skills. SATs of competitive forensic events. P/NP or letter grading. 103A. Basic preparation; 103B. Advanced practicum in speech.

104. Analysis and Briefing. (4) (Formerly numbered Communication Studies 104.) Lecture, three hours. Intensive study of selected political or social issues, preparation of bibliography, analysis and evaluation of issues and arguments. P/NP or letter grading.

105. Media Conspiracy Theories in U.S. and Middle Eastern Media. (4) (Formerly numbered Communication Studies 105.) Lecture, three hours. Through mass and digital media, conspiracy theories are reshaping politics and society around world. Study of political and social issues, particularly related to contemporary political events in various world contexts, including Western and Muslim nations. P/NP or letter grading.

106. Reporting America. (4) (Formerly numbered Communication Studies 106.) Lecture, three hours. Introduction to main western European and Middle Eastern news media, with materials in English. Exploration of how U.S. is represented in Europe, Middle East, Iran, and Afghanistan, with focus on three comparative case studies of Britain, Spain, and Germany. In-depth coverage of Albuquerque, New Mexico, as reflected in Europe and Middle East. P/NP or letter grading.

107. Terrorism in Journalism. (4) (Formerly numbered Communication Studies 107.) Lecture, three hours. How do media outlets in Middle East represent Islamist terrorism? How do they describe, analyze, and comment on suicide attacks? Focus on Arab, Afghan, and Iranian media discussions of this phenomenon and its contribution to the development of meaning of terrorism in Middle Eastern societies. P/NP or letter grading.

108. Communication and Identity. (4) Lecture, three hours. Study of relationships among communication, culture, and identity, and examination of ways in which texts (broadly construed) constitute experience, define subjectivity. Focus on the representation and meaning in construction of self, social collective, and world views. Consideration of how communication is performative endeavor for humans seeking to construct identity. Students are prepared to describe and explain theories that detail performance as communicative form, analyze ways language and discourse function as texts that work to produce significant personal and social identities, and describe specific principles, motivations, and theoretical categories within interdisciplinary study of culture that produce identity. Letter grading.

109. Entrepreneurial Communication. (4) (Formerly numbered Communication Studies 109.) Lecture, four hours. Study of entrepreneurial communication from foundations in internal and external communication and development of data analysis, and presentation skills utilized in existing, as well as in development of, contemporary innovative businesses. P/NP or letter grading.

110. Gender and Communication. (4) (Formerly numbered Communication Studies 110.) Lecture, four hours. Understanding gender is fundamental part of understanding who we are as human beings. Exploration of crucial role of gender in spheres of life involving communication and relationships. P/NP or letter grading.

Graduate Degrees in Communication
The Department of Communication offers the Master of Science (MS) and Doctor of Philosophy (PhD) degrees in Communication.
include family, workplace, sexuality, and intimate relationships. Discussion of how media influence conceptions of gender. P/NP or letter grading.

111. Conflict and Communication. (4) (Formerly numbered Communication Studies 111.) Lecture, three hours. Analysis of when and why conflict is prevalent in communication (including mass media) and how communication affects reactions to and consequences of conflict. Conflict is part of our evolutionary heritage. How well we handle various conflicts affects, to a great degree, our success or failure wherever we interact with others, including intimate relations, school, and workplace. P/NP or letter grading.

112. Current Issues in Vocal Communication. (4) (Formerly numbered Communication Studies 112.) Lecture, Seminar, three hours. Requisite: course 118 or 120 or 126. Examination of contemporary issues in evolutionary communication research. Topics include design of communication systems, animal signaling, social communication, and speech production and perception. P/NP or letter grading.

M113. Nonverbal Communication and Body Language. (4) (Formerly numbered Communication Studies 113.) Lecture, four hours. Explanation of various forms of nonverbal communication: facial expressions, gestures, body movements, voice. P/NP or letter grading.

114. Understanding Relationships. (4) (Formerly numbered Communication Studies 114.) Lecture, four hours. Explanation of various aspects of communication that occur in close relationships, especially romantic relationships. In-depth coverage of various relationship topics, including intimacy, stages of intimate relationships, why we choose to get involved with some people as opposed to others, flirting, and self-disclosure. P/NP or letter grading.

115. Interpersonal Dynamics. (4) Lecture, three hours. Survey of recent scientific approaches to dyadic communication and relationships. Topics selection of experimental, observational, and quantitative methods, and how they can be applied to key issues in dyadic communication and interpersonal relationships. Topics include recent psychological techniques for measuring and influencing dyads, including role of peripheral devices such as phones or other wearable devices. Consideration of dyadic processes including influence, mimicry, leadership, active listening, and more. Examination of how findings apply beyond dyads to teams. Letter grading.

116. Communication and Conflict in Couples and Families. (4) (Formerly numbered Communication Studies 116.) Lecture, three hours. Examination of (1) dysfunctional communication and conflict in couples and families and (2) relationship of these processes to individual psychopathology, marital discord, and family disruption (e.g., separation and divorce). P/NP or letter grading.

M117. Negotiation. (4) (Formerly numbered Communication Studies 117.) (Same as Labor Studies M117.) Lecture, four hours. Art and science of negotiation and differences between independent and interdependent parties. Theory and practice that underlies successful negotiation. Experiential course in which students learn broad array of negotiation skills, including identifying goals and (other) communication style, identifying and incorporating components of successful negotiation, and resolving conflict between parties. Letter grading.

118. Language and Music. (4) (Formerly numbered Communication Studies 118.) Lecture, three hours. Cognitive science exploration of structure and evolution of language and music and their relationships to communication, cognition, and culture. P/NP or letter grading.

119. Voice and Its Perception. (4) (Formerly numbered Communication Studies 119.) Lecture, four hours. Focus on how human voice conveys information about identity of speakers, physical characteris-
143. Rhetoric of Popular Culture. (4) (Formerly numbered Communication Studies 143.) Lecture, three hours. Rhetorical approach to study of U.S. popular culture. Examination, both at theoretical level and through specific case studies, of ways in which popular cultural texts perform rhetorically to influence political and social struggles shaping everyday life. How do particular artifacts or communicative texts constitute source for (re)negotiation of cultural meanings as well as generators of ways language functions as vehicle for human action. Letter grading.

M144A-M144B. Conversational Structures I, II, (4-4) (Formerly numbered Communication Studies M144A-M144B.) Lecture, three hours; discussion, one hour. P/NP or letter grading. M144A. Introduction to some structures that are employed in organization of conversational interaction, such as turn-taking, organization, organization of repair, and some basic sequence structures with limited expansions. M144B. Requisite: course M144A. Consideration of some more expanded sequence structures, story structures, topical sequences, and overall structural organization of single conversations.

145. Situation Comedy and American Culture. (4) (Formerly numbered Communication Studies 145.) Lecture, three hours. Historical analysis of sitcom genre from its beginning in late 1940s to present. Investigation of how sitcoms have influenced American life and culture and how American life and culture have influenced sitcoms. Exploration of issue of race, ethnicity, class, and gender roles, and political culture. P/NP or letter grading.

146. Evolution of Mass Media Images. (5) (Formerly numbered Communication Studies 146.) Lecture, four hours; discussion/laboratory, one hour. Analysis of evolutionary psychology as basis for images selected by media portraying women and/or minorities in entertainment, advertising, and informational communication. Letter grading.

M147. Sociology of Mass Communication. (4) (Formerly numbered Communication Studies M147.) (Same as Sociology M176.) Lecture, four hours; discussion, one hour (when scheduled). Studies in relationship between mass communication and social organization. Topics include history and organization of major media institutions, social forces that shape production of mass media news and entertainment, selected studies in rhetoric, and effects of media on society. P/NP or letter grading.

148. Integrated Marketing Communications. (4) (Formerly numbered Communication Studies 148.) Lecture, three hours. Exploration of communication theory and methods in marketing communications in both traditional and digital media. Development and execution of communications strategies, with primary emphasis on business-to-business communications. Use of market segmentation and positioning, message strategy, promotion, and execution of marketing communications through appropriate media technologies. Letter grading.

M149. Media: Gender, Race, Class, and Sexuality. (5) (Formerly numbered Communication Studies M149 and Labor Studies M149.) Lecture, four hours; activity, one hour. Limited to 40 Communications, Gender Studies majors and Labor Studies minors. Examination of manner in which media culture induces people to perceive various dominant and dominated and/or colonized groups of people. Ways in which women, gay, lesbian, bisexual, transgendered, racial, and ethnic marginalized peoples, class relations, and other subaltern or subordinated groups are presented and often misrepresented, censored, and deleted from information and cultural narratives. Investigation of application of quantitative and qualitative methods in communicating major social and political issues, with primary emphasis on print and online media, as well as on use of social networking sites (e.g., Facebook, Twitter, YouTube) through social network analysis and other social science research methods. P/NP or letter grading.


152. Analysis of Communication Effects. (4) (Formerly numbered Communication Studies 152.) Lecture, four hours. Survey of experimental and field research designs. Emphasis on data collection, study design, message content, and environmental factors affecting audience response. P/NP or letter grading.

154. Social Communication and New Technology. (4) (Formerly numbered Communication Studies 154.) Lecture, four hours. Internet’s digital core was designed for military command. Yet emerging network was gradually co-opted to perform communicative functions such as gossip, dating, news, entertainment, and trade. Exploration of history, social effects, and possible futures of digital communication. Letter grading.

155. Artificial Intelligence and New Media. (4) (Formerly numbered Communication Studies 155.) Lecture, three hours. History of Artificial Intelligence (AI) and machine learning (ML) have made rapid progress in recent years on various fronts. Many of their advanced techniques are being transferred to number of domains such as human-computer interaction, medicine, advertisement, military operations, and social media, and aiding our decision making, planning, reasoning, and forecasting. Overview of origins and modern development of artificial intelligence and its recent break throughs through many applications with special emphasis on its usages of media industry, e.g., personalization, recommendations, and targeted advertising. Covers its technical domains and controversies such as ethical and moral issues of AI, privacy concerns in data collection, and fair use of AI in general. Prior knowledge in mathematics, statistics, or computer science not required. Discussion of elementary technical details as course unfolds. Letter grading.

156. Social Networking. (4) (Formerly numbered Communication Studies 156.) Lecture, three hours. Investigation of how new online social networks have facilitated interpersonal interactions for knowledge sharing, romance, business, politics, and entertain ment. Critical investigation of current popular social networking sites (e.g., Twitter, Facebook, YouTube) through social network analysis and other social science research methods. P/NP or letter grading.

157. Celebrity, Fame, and Social Media. (4) (Formerly numbered Communication Studies 157.) Lecture, three hours. Analysis of how following personal lives of media-created celebrities impacts self-esteem, connectedness, and personal relationships from cultural studies and social sciences perspectives, and how entities cultivate celebrity for financial gain. Topics include celebrity gossip and privacy, news sharing, public relations, and impact of social media on fan support, image construction, and damage control. P/NP or letter grading.

158. Revolutions in Communication Technology. (4) (Formerly numbered Communication Studies 158.) Lecture, three hours. Study of dynamic processes of innovation and diffusion of communications technology from its earliest expressions to information age. Examination of developments in speech, images, and writing. Investigation of interactions of cognitive factors, social change, and technological change. Letter grading.

159. Political Communication. (4) (Formerly numbered Communication Studies 160.) Lecture, four hours; discussion, one hour. Study of nature and function of communication in political sphere; analysis of contemporary and historical communications within established political institutions; state papers; deliberative discourses; electoral campaigns. Letter grading.

162. Presidential Communication. (4) (Formerly numbered Communication Studies 162.) Lecture, three hours. Examination of historical evolution of presidential communication on environment, resources, and strategies, as well as the presidential campaign. Communication has evolved over time and implications for how presidents govern. Letter grading.


164. Entertainment Law. (4) (Formerly numbered Communication Studies 164.) Lecture, three hours. Various issues in entertainment industry, with primary focus on litigation, legal issues, and free speech-related concepts. P/NP or letter grading.

M165. Agitational Communication. (4) (Formerly numbered Communication Studies M165.) (Same as Labor Studies M175.) Lecture, four hours. Discussion, one hour (when scheduled). Theory of agitation; agitation as force for change in existing institutions and policies in democratic society. Intensive study of selected agitational movements and technique and content of their communications. Letter grading.

166. Inside Hollywood. (4) (Formerly numbered Communication Studies 166.) Lecture, four hours. Identification of condition of creativity and interaction with business interest, research, and policies in producing entertainment for media market. P/NP or letter grading.

M169. Critical Vision: History of Art as Social and Political Commentary. (5) (Formerly numbered Communication Studies M169.) (Same as Honors Col lege M169.) Lecture, four hours. Exploration of history of visual arts (painting, graphic art, photography, sculpture) as vehicles for social and political commentary. P/NP or letter grading.


171. Theories of Freedom of Speech and Press. (4) (Formerly numbered Communication Studies 171.) Lecture, three hours. Exploration of relationship between freedoms of speech and press and values of liberty, self-realization, self-government, truth, dignity, respect, justice, equality, association, and community. Study of significance of these values examined in connection with issues such as freedom of information, access to media, and control of commercial, corporate, and government speech. P/NP or letter grading.

175. Criticism and Public Arts. (4) (Formerly numbered Communication Studies 175.) Lecture, four hours. Introduction to methods and problems of criticism in public arts. Study of several types of critical methods: formalistic, analogue, pragmatic, and aesthetic criticism. Topics include definition of art and criticism, aesthetic media, genre and resources of film, television, theater, and public discourse, varieties of critical method, problems of critical judgment. Letter grading.

M176. Visual Communication and Social Advocacy. (4) (Formerly numbered Communication Studies M176) (Same as Labor Studies M176.) Lecture, four hours. Visual communication reaches diverse audiences communicating in diverse political topics. Cartoons, posters, murals, and documentary photography have had powerful world impact. Survey of all four genres of visual communications as features of modern media. Letter grading.

178. Propaganda and Media. (4) (Formerly numbered Communication Studies 178.) Lecture, three hours. Examination of nature of propaganda, institutional structure of American media, and relationship of each to communication in American context. History of propaganda in America from World War I era forward, competing theories of democracy and media, and role of corporations in propaganda and news. Letter grading.

standing of way our nation is perceived by others. Exploration of roots of U.S. images in minds of people abroad. Analysis of influences that contribute to images and ways in which images affect practical matters. P/NP or letter grading.

152. Nonverbal Communication in Architecture. (4) (Formerly numbered Communication Studies 182.) Lecture, four hours. Study of how elements of design and style of various buildings in architectural history send messages to viewers and users of such buildings. Limited to graduates.

183. Media and Mind. (4) (Formerly numbered Communication Studies 183.) Lecture, three hours. Investigation of media persuasion and entertainment appeal through case-study approach; study of unique interaction of media institutions (print, film, broadcasting, and new technologies) and societal influences (Congress, federal agencies, courts, President, etc.). Study of advertising's role in society. P/NP or letter grading.

184. Media, Ethics, and Digital Age: Case-Study Approach. (4) Lecture, three hours. To publish or not to publish? Study addresses questions of media ethics—and ethics more broadly—using case-study method to debate pressing issues from actual newsrooms. Students participate in Socratic discussion of fairness, bias, and personal and societal implications of printed, broadcast, and digitized word. Letter grading.

185. Field Studies in Communication. (2 to 4) (Formerly numbered Communication Studies 185.) Lecture, two hours; for juniors/seniors. Fieldwork in communication. Students participate in two-hour seminar sessions and spend seven hours in approved community settings each week for each 2 units of credit, taken for maximum of 4 units per term. P/NP grading.

186. Media, Ethics, and Digital Age: Case-Study Approach. (4) Lecture, three hours. To publish or not to publish? Study addresses questions of media ethics—and ethics more broadly—using case-study method to debate pressing issues from actual newsrooms. Students participate in Socratic discussion of fairness, bias, and personal and societal implications of printed, broadcast, and digitized word. Letter grading.

187. Ethics and Policy Issues in Institutions of Mass Communication. (4) (Formerly numbered Communication Studies 187.) Lecture, three hours. Examination of ethical and policy issues arising from interaction of media institutions (print, film, broadcasting, and new technologies) and societal institutions (Congress, federal agencies, courts, Presidency, schools, churches, political action groups, advertisers, and audiences). P/NP or letter grading.

188A. Variable Topics in Mass Communication and Media Institutions. (4) (Formerly numbered Communication Studies 188A.) Lecture, three hours. Variable topics; consult Schedule of Classes for topics to be offered in specific term. May be repeated for credit with topic change. Letter grading.

188B. Variable Topics in Interpersonal Communication. (4) (Formerly numbered Communication Studies 188B.) Lecture, three hours. Variable topics; consult Schedule of Classes for topics to be offered in specific term. May be repeated for credit with topic change. Letter grading.

188C. Variable Topics in Communication Technology and Digital Systems. (4) (Formerly numbered Communication Studies 188C.) Lecture, four hours. Variable topics; consult Schedule of Classes for topics to be offered in specific term. May be repeated for credit with topic change. P/NP or letter grading.

188D. Variable Topics in Political and Legal Communication. (4) (Formerly numbered Communication Studies 188D.) Lecture, four hours. Variable topics; consult Schedule of Classes for topics to be offered in specific term. May be repeated for credit with topic change. P/NP or letter grading.

189. Advanced Honors Seminars. (1) (Formerly numbered Communication Studies 189.) Seminar, three hours. Limited to 20 students. Designed as an adjunct to undergraduate lecture course. Exploration of topics in greater depth through supplemental readings, writing, individual study with course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

189C. Honors Contracts. (1) (Formerly numbered Communication Studies 189C.) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to undergraduate lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

191A. Variable Topics Research Seminars: Mass Communication and Media Institutions. (4) (Formerly numbered Communication Studies 191A.) Seminar, three hours. Research seminars on selected topics in mass communication. Reading, discussion, and development of culminating project. May be repeated for credit with topic change. P/NP or letter grading.

191B. Variable Topics Research Seminars: Interpersonal Communication. (4) ( Formerly numbered Communication Studies 191B.) Seminar, three hours. Research seminars on selected topics in interpersonal communication. Reading, discussion, and development of culminating project. May be repeated for credit with topic change. P/NP or letter grading.

191C. Variable Topics Research Seminars: Communication Technology and Digital Systems. (4) (Formerly numbered Communication Studies 191C.) Seminar, three hours. Research seminars on selected topics in communication technology and digital systems. Reading, discussion, and development of culminating project. May be repeated for credit with topic change. P/NP or letter grading.

191D. Variable Topics Research Seminars: Political and Legal Communication. (4) (Formerly numbered Communication Studies 191D.) Seminar, three hours. Research seminars on selected topics in political and legal communication. Reading, discussion, and development of culminating project. May be repeated for credit with topic change. P/NP or letter grading.

191E. Variable Topics: Research Seminars: Practicum. (4) (Formerly numbered Communication Studies 191E.) Seminar, three hours. Practicum seminars on selected topics in communication. Research, writing, discussion, and development of culminating project. May be repeated for credit with topic change. P/NP or letter grading.

194. Research Group Seminars: Communication Studies. (2) (Formerly numbered Communication Studies 194.) Seminar, two hours. Designed for undergraduates who are part of research group. Discussion of research methods and current literature in field or of research of faculty members or students. May be repeated for credit with topic change. P/NP or letter grading.

197. Individual Studies in Communication Studies. (2 to 4) (Formerly numbered Communication Studies 197.) Tutorial, one hour. Limited to juniors/seniors. Individual intensive study, with scheduled meetings to be arranged between faculty member and student. Assigned reading and evidence of mastery of subject area required. May be repeated for credit. Individual contract required. P/NP or letter grading.

198A-198B-198C. Honors Research in Communication Studies. (4–4–4) (Formerly numbered Communication Studies 198A-198B-198C.) Tutorial, three hours. Limited to junior/senior majors. May be repeated for credit. Individual contract required. Letter grading. 198A. Requisite: courses 10, 150. Development of comprehensive research project under direct supervision of faculty member. 198B. Requisite: course 198A. Continuation of work initiated in course 198A. Presentation of summary of data gathered and formulation of position to a faculty member. 198C. Requisite: course 198B. Completion of research developed in courses 198A, 198B. Presentation of honors project to supervising faculty.

199. Directed Research or Senior Project in Communication Studies. (2 to 4) (Formerly numbered Communication Studies 199.) Tutorial, one hour. Limited to juniors/seniors. Supervised individual research or investigation under guidance of faculty mentor. Culminating paper or project required. May be repeated for credit. Individual contract required. P/NP or letter grading.

Graduate Courses

200. Theories in Communication Science. (4) Seminar, three hours. Exploration of methodological approaches that bridge major areas of current interdisciplinary communication science research. S/U or letter grading.

220. Research Methods in Communication Science. (4) Seminar, three hours. Exploration of how communication science research is conducted with focus on quantitative methodology. Students gain understanding of the tools used to conduct research, and experience with these tools and develop research ideas and projects. S/U or letter grading.

230. Communication and Cognition. (4) Seminar, three hours. Exploration of how cognitive processes underlie multiple aspects of communication, including its evolutionary and biological underpinnings, its relevance for broad types of communication (e.g., interpersonal and mass media), and its integrative capacity across multiple areas of social science research. S/U or letter grading.

232. Infant Communication. (4) Seminar, three hours. Covers topics in development of interpersonal communication during infancy including neural and social mechanisms, role of culture, clinical issues, and research methodology. S/U or letter grading.

M234. Social Vision. (4) (Same as Psychology M222G.) Seminar, three hours. Exploration of nascent field of social vision, with emphasis on how observers utilize visible cues in face and body to form impres-
COMMUNITY ENGAGEMENT AND SOCIAL CHANGE
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Scope and Objectives
The Community Engagement and Social Change minor is designed to provide students with a core analytical, experiential, and theoretical framework for understanding three intersecting dimensions of civic engagement at the local level: issues of social inequality, modes of social change, and the community in which the engagement takes place. The minor can be paired with any major as an applied and active way of putting disciplinary tools to use, and is intended for highly motivated students of any ideological perspective who are committed to education among a broader community of learners. Students complete a core curriculum, elective courses, a course on a strategy of social change, and a community-engaged capstone research project examining a social issue in a specific Los Angeles community context.

Undergraduate Study Community Engagement and Social Change Minor
The Community Engagement and Social Change minor integrates community engagement with an academic context that enriches the valuable learning gained through meaningful work.

To enter the minor, students must have an overall grade-point average of 2.7 or better, submit a completed application, and submit a written statement describing how civic engagement relates to their academic interests or career goals. Digital applications are available.

As they move through the minor, students compile a portfolio. They start the portfolio by articulating a plan for the completion of the minor that reflects the social issues, strategies of engagement, and local communities upon which they will focus their pathway through the minor. This plan is completed as the final reflective writing assignment for Community Engagement and Social Change 50XP or 100SL (for those students declaring an intention to pursue the minor). The portfolio is a repository for the products associated with their academic and experiential work for the minor, including a copy of their capstone research paper, and a critical reflection prior to graduation detailing their pathway through the minor and its implications for their future academic study and/or community engagement.


Required Capstone (8 units): Community Engagement and Social Change 191A, 191B, with grades of B or better. Students must have completed the core courses requirement, and at least one other com-
munity-engaged course prior to enrolling in the Community Engagement and Social Change 191A. Students may petition to have a capstone sequence completed for their major, subject to the minor’s capstone requirement. Students may also petition to complete the capstone under the guidance of a faculty sponsor through independent research, Community Engagement and Social Change 199, after completing 191A. The faculty mentor approves proposed readings as well as length and scope of the final paper/project based on guidelines developed by the faculty committee.

The capstone experience for the minor requires an integrative final paper or project that incorporates the required curriculum and elective courses. It should address the intersection of a social issue, strategies employed to address that issue, and examination of those methods within specific communities of Los Angeles. The capstone project should be informed by at least one of the student’s community-engaged learning courses (e.g., the community-engaged course and/or the internship).

A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor.

Each minor course must be taken for a letter grade, and students must have an overall grade-point average of 3.0 or better in the minor. Successful completion of the minor is indicated on the transcript and diploma.

Community Engagement and Social Change

Lower-Division Courses

10. Introduction to Engaged Scholarship. (2) (Formerly numbered Civic Engagement 10.) Seminar, two hours. Limited to students participating in preapproved UCLA civic engagement programs. Introduction to the history, research, and philosophy of general University/community partnerships, as well as specific opportunities for active engagement by undergraduate students at UCLA. Offered in summer only. P/NP grading.

18. Bruin Leaders: Model for Social Change. (1) (Formerly numbered Civic Engagement 18.) Lecture, two hours; fieldwork, one hour. Introduction to leadership development and civic engagement through community service. Based on nonhierarchical mode of leadership developed by UCLA Graduate School of Education and Information Studies. Topics include diversity issues, organizational skills and team-building, development, and personal growth and community service goals. Participation in first-week orientation session required. Consult Schedule of Classes for topics to be offered in specific term. May not be repeated for credit. P/NP or letter grading.

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

50XP. Engaging Los Angeles. (5) (Formerly numbered Community Engagement and Social Change 50SL.) Lecture, two hours; discussion, two hours. Community-engaged learning course with focus on diverse communities of Los Angeles. Analysis of general shared history of Los Angeles. Comparing or contrasting of experiences of several different racial/ethnic groups. Engagement in meaningful work off campus to reflect on social, economic, and issues of equity and social justice that occur in minority/majority city. Letter grading.

89. Honors Seminars. (1) (Formerly numbered Civic Engagement 89.) Seminar, three hours. Limited to 20 students. Designed as adjunct to lower-division lecture course. Emphasis in group discussion through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors consent noted on transcript. P/NP or letter grading.

89HC. Honors Contracts. (1) (Formerly numbered Civic Engagement 89HC.) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to lower-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors consent noted on transcript. Letter grading.

95A-95B. Introduction to Community-Based Internships. (2-4) (Formerly numbered Civic Engagement 95A-95B.) Fieldwork, four hours (course 95A) and 10 hours (course 95B). Course 95A is not required to 95B. Introduction to community-based work for students in specialized UCLA scholarship programs or for undergraduate interns at established community agency sites as established by Center for Community Learning. Individual contract with supervising faculty member required. P/NP or letter grading.

95CE. Introduction to Community-Based Internships. (2) (Formerly numbered Civic Engagement 95CE.) Tutorial, one hour; fieldwork, four hours. Introduction to community-based work for third-term freshmen/sophomores who have completed 90 units. Platform for preplanned, organized, and supervised off-campus experiences with academic context. Acceptable placements include corporate, nonprofit, and governmental organizations that meet criteria for undergraduate internships. Internships as established by Center for Community Learning. May be repeated once for credit. Individual contract with supervising faculty member required. P/NP or letter grading.

98A. Leadership and Social Change. (2) Seminar, two hours. Exploration of different modes of leadership and consideration of how effective leadership can bring about positive change. We live in a period of extraordinary opportunity and challenge—in which breathtaking technological advances sit alongside breathtaking cynicism and corruption. Examination of how effective and inspiring leaders can lead in such environment, if it is possible to make difference and effect change in face of deep structural inequality, criteria that make effective leader, and if each of us bears within ourselves a leadership potential. Examination of past models of successful leadership and different models of present-day leadership, drawing on inspiring examples from social activism, politics, religion, and philanthropy. Students are encouraged to formulate their own models of leadership. Three to four day experiential learning opportunity in leadership development off campus. P/NP or letter grading.

98B. Organizational Analysis and Workforce Readiness. (2) Seminar, two hours. Requisite: course 98A. Analytic training on how to study institutions and organizations. Students identify, contact, and interview practitioners from work area of interest. Site visits to various working environments in Los Angeles area. Analysis training on how to study institutions and organizations and prepare research briefs on organizations/insitutions/industries. P/NP or letter grading.

99. Student Research Program. (1 to 2) Tutorial (supervised research or other scholarly work), three hours per week per unit. Entry-level research for lower-division students under guidance of faculty mentor. Students must be in good academic standing and enrolled in minimum of 12 units (excluding this course). Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP or letter grading.

Upper-Division Courses

100SL. Perspectives on Civic Engagement. (4) (Formerly numbered Civic Engagement 100SL) Seminar, three hours. Introduction to civic engagement research and practice open to students who have been accepted in Civic Engagement minor, as well as those freshmen/sophomores who are interested in theories and concepts of civic engagement within undergraduate education. Letter grading.

102. Reflections on Alternative Spring Break. (2) (Formerly numbered Civic Engagement 102.) Seminar, two hours. Limited to students who have participated in USAC Community Service Commission Alternative Spring Break immediately prior to Spring Quarter. Discussion of role of higher education initiatives in civic identity formation, with specific attention to reflection on Alternative Spring Break experiences. P/NP or letter grading.

105SL. Client-Based Program Evaluation and Research. (4) (Formerly numbered Civic Engagement 105SL) Seminar, three hours; fieldwork, 10 hours. Limited to juniors/seniors. Service learning course for undergraduate students and community partners through which students are engaged in practice of program evaluation. Evaluation of nonprofit organizations in Los Angeles by research teams. Offered in summer only. Letter grading.

108SL. Introduction to Early Childhood Education: Civic Engagement Perspectives. (4) (Formerly numbered Civic Engagement 108SL) Lecture, three hours; fieldwork, eight hours. Limited to students who are participating members of Jumpstart AmeriCorps literacy program. Service-learning course on early childhood development and civic engagement. Overview of child development theory as well as examination of policies and systems that impact practice of preschool education. Discussion of the future of civic engagement movement designed to engage diverse groups of committed stakeholders in reaching common goals. P/NP or letter grading.

M110SL. Community-Based Studies of Popular Literature. (5) (Formerly numbered Civic Engagement M110SL) (Same as English M110SL) Lecture, four hours; discussion, one hour (when scheduled); fieldwork, two hours. Emphasis on Composition 3. Service learning course that examines history and development of one or more genres of popular literature, with attention to contemporary communities of readers and writers that make up the “nation.” Topics vary and may include children’s literature and childhood literacy, mass market fiction and book club culture, or science fiction and science policy. Service-learning component includes meaningful work with local nonprofit organizations selected in advance by instructor. May be repeated for credit with topic change. P/NP or letter grading.

M115. Citizenship and Public Service. (4) (Formerly numbered Civic Engagement M115.) (Same as Political Science M115C) Lecture, three or four hours; discussion, one hour (when scheduled). Recommended prerequisite: Political Science 10. Designed for juniors/seniors. A study of ways in which public intellectuals have conceived of ideas of citizenship and public service, how these ideas have changed over time, and frameworks for thinking about citizenship in era of markets and globalization. P/NP or letter grading.

M122. Philanthropy as Civic Engagement. (5) (Formerly numbered Civic Engagement M122.) (Same as Honors Collegium M123.) Seminar, three hours. Limited to juniors/seniors; application required. Study of how philanthropists who are interested in social change have used philanthropic investments in Los Angeles-based nonprofit organizations. Letter grading.

139L. Intercultural Communication in Global Workplace. (4) Seminar, three hours. Students enrolled in international summer internships draw on their own and each other’s experiences to critically think about
intercultural communication, and to draw insights from that academic literature to analyze and build intercultural communication competencies in context of workplace environment. P/NP or letter grading.

133SL. Topics in Community-Based Research: Theory and Practice. (5) (Formerly numbered Civic Engagement 133SL.) Seminar, three hours; fieldwork, two hours. Service learning course that examines variable topics related to theory and practice of community-based research. Service learning component includes meeting with community partner(s), student participation in an ongoing project selected in advance by instructor and Center for Community Learning. May be repeated for credit with topic or instructor change. Letter grading.

145. Conflict, Power, Inequality, and Change. (4) (Formerly numbered Civic Engagement 145.) Lecture, four hours. Broad historical trend of systems in conflict since beginnings of colonialism, including capitalism, urbanism, industrialization, consumerism, determinism of modalities and theories of conflict and transformation, with emphasis on three primary forms of societal conflict: social movements, war, and terrorism. Study of resource scarcity through two specific dimensions: how it is leveraged to meet political ends, and how it can be harnessed for conflict intervention, resolution, transformation, and prevention. P/NP or letter grading.

150. Social Innovation Theory and Application. (4) (Formerly numbered Civic Engagement 150.) Seminar, three hours. Limited to students in UCLA Summer Social Innovation Research Program. Study of social innovation as a lens of civic engagement, with particular emphasis on how social innovators have transformed way we address entrenched social issues. Study of elements of existing social innovation models and strategies for employing methods of social change in campus and local communities. Offered in summer only. Letter grading.

151. Documentary Film Making as Strategy for Social Change. (4) (Formerly numbered Civic Engagement M151SL.) Lecture, two hours; discussion, two hours; field placement, two hours. Survey and exploration of immigrant landscape in Los Angeles—truly global city acting in part to buffer, settle, and incorporate immigrants in daily life. Focus on civil society to explore multiple forms of interventions and impacts that take place in multiple communities across Los Angeles basin. Service learning partnerships focus on organizations addressing immigration concerns. Discussion of theories and practice of documentary film production and distribution. Students work on off-campus community partners selected in advance by professor and Center for Community Learning. Letter grading.

157SL. Documentary Films and Their Families. (5) (Formerly numbered Civic Engagement M157SL.) Same as Chicana and Chicano Studies M157SL and Labor Studies M157SL.) Lecture, two hours; discussion, two hours; field placement, two hours. Survey and exploration of immigrant landscape in Los Angeles—truly global city acting in part to buffer, settle, and incorporate immigrants in daily life. Focus on civil society to explore multiple forms of interventions and impacts that take place in multiple communities across Los Angeles basin. Service learning partnerships focus on organizations addressing immigration concerns. Discussion of theories and practice of documentary film production and distribution. Students work on off-campus community partners selected in advance by professor and Center for Community Learning. Letter grading.

157SL. Making Films about Food. (5) (Same as Food Studies M176SL and Public Affairs M176SL.) Lecture, three hours. Introduction to documentary video production and distribution. Students work on assignments in pairs and small groups to create 8- to 10-minute video about one of several Los Angeles partner organizations’ mission, health, local sustainable food. Consideration, through video production, of challenges posed by existing farming, ranching, and distribution methods, and strategies these groups are pursuing to create more sustainable food pathways. Students look at social media communication strategies to help think through intervention in face of historically entrenched industrial food production and regulations that remain favorable to mass-produced, processed food items. P/NP or letter grading.

160. Access to Justice: Hope and Reality. (4) (Formerly numbered Civic Engagement 160.) Seminar, three hours. Limited to UCLA students who are members of JusticeCorps program through AmeriCorps. JusticeCorps was established as innovative approach to solving one pressing issue: access to courts around country today: providing equal access to justice. Examination of promise of justice system in America to provide meaningful access to courts for all who seek it. What premises underlie structure of U.S. legal system? Exploration of sociopolitical context for current legal system, including origins and current status of legal services and self-help movements, including role of JusticeCorps. Students are designed to make promise of equal justice a reality or have they inadvertently, or intentionally, resulted in two-tiered legal system—one for those with means and another for those without. Letter grading.

168. Practicum in Social Entrepreneurship. (4) (Formerly numbered Civic Engagement M168.) Same as Economics M168.) Seminar, three hours. Enrollment by consent of instructor. Offers students full-scale immersion into challenges of launching social enterprise. Students work in teams alongside staff of local nonprofit organizations in 10-week social enterprise accelerator program aimed at helping participating organizations secure financial and operational resources they need to implement social enterprise for which they have strong business plan but have not been constructed. Students meet assigned organization, study its business plan, and work with instructors of course and staff of nonprofit organization to develop tailored project to help organizations launch the venture. Students carry out work in conjunction with staff of organization under supervision of instructors and with assistance of experienced entrepreneur mentor/person.

188SA. Individual Studies for USIE Facilitators. (1) (Formerly numbered Civic Engagement 188SA.) Tutorial, to be arranged. Enforced corequisite: Honors Col- legium 101E. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor to discuss selected USIE seminar topic, conduct preparatory research, and begin preparation of syllabus. Individual contract with faculty mentor required. May not be repeated. Letter grading.

188SB. Individual Studies for USIE Facilitators. (1) (Formerly numbered Civic Engagement 199SB.) Tuto- rial, to be arranged. Enforced corequisite: course 188SA. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor to finalize course syllabus. Individual contract with faculty mentor required. May not be repeated. Letter grading.

188SC. Individual Studies for USIE Facilitators. (2) (Formerly numbered Civic Engagement 188SC.) Tuto- rial, to be arranged. Enforced corequisite: course 188SB. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor while facilitating USIE 88S course. Individual contract with faculty mentor required. May not be repeated. Letter grading.

189. Advanced Honors Seminars. (1) (Formerly numbered Civic Engagement 189.) Seminar, three hours. Limited to 20 students. Designed as adjunct to undergraduate lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible stu- dents. Honors content noted on transcript. P/NP or letter grading.

189HC. Honors Contracts. (1) (Formerly numbered Civic Engagement 189HC.) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to upper-division lecture course. Individual study of variable topics in greater depth through supplemental readings, pa- pers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Enrolled by consent of instructor.

M190A. Introduction to Community-Engaged Research. (4) (Same as Labor Studies M190A.) Seminar, three hours. Enrollment by consent of instructor. De- signed for students participating in Astin Community Scholars Program. Introduction of principles of com- munity-engaged research. Exploration of intentions behind doing research with community residents and organizations, our responsibilities when conducting research, and historically disengaged communities, and relationship between socially-just research out- comes and methodologies. P/NP or letter grading.

M190B. Community-Engaged Research in Pract: Community Scholars. (4) (Same as Labor Studies M190B.) Seminar, three hours. Requisite: course M190A. Enrollment by consent of instructor. De- signed for students participating in Astin Community Scholars Program. Students learn from faculty, community stakeholders, graduate students, and key academic experts about emerging organizing models, best practices, and changing landscape in chosen topic. May be repeated. May be signed for students participating in Astin Community Scholars Program. Limited to 5 students. Each student works with 3-4 members from key community and labor organizations across Los Angeles on six-month dynamic participa- tory research project. Focus on current topic affecting Angelinos in neighborhoods and communities. Out- comes may include production of policy reports, pop- ular education materials, and/or book publication by
with graduate student coordinator, and write final research paper. Faculty sponsor and graduate student coordinator construct series of reading assignments that examine issues related to internship site. May be repeated for credit with consent of Center for Community Learning. In.

191A. Capstone Research Seminar. (4) Seminar, three hours. Provides students with analytical and applied framework for process of researching historical and contemporary social issues and efforts to bring about change in local communities. Letter grading. 191B. Capstone Research Seminar: Projects. (4) Seminar, three hours. Provides students with analytical and applied framework for process of researching historical and contemporary social issues and efforts to bring about change in local communities. Letter grading.

194. Capstone Research Seminar. (4) (Formerly numbered Civic Engagement 194A.) Seminar, two hours. Required: course 195CE. Required of students pursuing Civic Engagement minor. Integration of off-campus work with academic theories and concepts within field of civic engagement. Students report on their internship experiences and analyze relationship between their internship and issues of policy, ethics, systemic responses to community needs, or personal and intellectual transformations. Students identify one faculty mentor and develop proposal for required capstone research project. Letter grading.

195. Community or Corporate Internships in Civic Engagement. (4) (Formerly numbered Civic Engagement 185.) Tutorial, one hour; fieldwork, eight hours. Limited to students in Astin Civic engagement spring training program. Integration of off-campus work with academic theories and concepts within field of civic engagement. Students report on their internship experiences and analyze relationship between their internship and issues of policy, ethics, systemic responses to community needs, or personal and intellectual transformations. Students identify one faculty mentor and develop proposal for civic engagement research project. Letter grading.

195CE. Community and Corporate Internships in Community Engagement and Social Change. (4) (Formerly numbered Civic Engagement 195CE.) Tutorial, to be arranged; fieldwork, eight to 10 hours. Limited to juniors/seniors. Internship in corporate, governmental, or nonprofit setting coordinated through Center for Community Learning. Students complete weekly written assignments, attend biweekly meetings.

Graduate Course

375. Teaching Apprentice Practicum, (1 to 4) (Formerly numbered Civic Engagement 375.) Seminar, to be arranged. Preparation: apprentice personnel employment as teaching assistant, associate, or fellow. Teaching apprenticeship and individual supervision of faculty mentor. May be repeated once for credit. S/U grading.

COMMUNITY HEALTH SCIENCES

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Valentine M. Villa, PhD

Adjunct Assistant Professors

Matthew R. Beymer, PhD, MPH
Dana E. Hunnes, MPH, PhD, RD
Natalie D. Muth, MD, MPH, RDN, FAAP
Elizabeth Yzquierdo, MPH, EdD

Scope and Objectives

The Department of Community Health Sciences is concerned with health equity and well-being for all individuals and communities. To understand and foster optimal health among diverse communities, the mission of the department is to prepare students to be interdisciplinary global leaders who can effectively address persistent and emerging public health issues, conduct and disseminate innovative research on the social determinants of health, translate the findings for public health practice, and collaborate with communities in research and training.

The department offers school-wide professional (MPH) and academic (MS and PhD) degree programs. Graduates of the professional programs assume positions in the planning, administration, and evaluation of public health programs and policies in the U.S. and abroad. Graduates of the academic programs assume teaching, research, and managerial positions in universities, government agencies, nongovernmental organizations, international health agencies, and research centers.

Graduate Study

Official, specific degree requirements are detailed in program requirements for UCLA graduate programs, available at the Graduate Division website.

In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.
Community Health Sciences

Graduate Degrees

The Department of Community Health Sciences offers Master of Science (MS) and Doctor of Philosophy (PhD) degrees in Community Health Sciences and a Master of Public Health for Health Professionals (MPH-HP) degree. A concurrent degree program (Community Health Sciences MPH/Urban Planning MURP) is also offered.

Community Health Sciences

Lower-Division Courses

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

48. Nutrition and Food Studies: Principles and Practice. (5) Lecture, three hours; discussion, one hour. Overview of nutritional sciences and public health nutrition. Examination of basic science concepts of nutrition and appropriate responses of student lives and real-world issues through lectures, videos, diet analysis, activities, reports, discussion of video and reading assignments, and reviews of community programs. Study of nutrition and behavior theory to improve health of public. Students use observational research methods to create and answer questions about nutrition question in their cohort. P/NP or letter grading.

60. Intergroup Dialogue: Peer Dialogue. (2) Seminar, two hours. Discussion on issues of difference, conflict, and community to facilitate understanding between social/cultural groups. Student participation in semi-structured face-to-face meetings with students from other social identity groups to learn from each others’ perspectives, read and discuss relevant reading material, and explore their own and other groups’ experiences in various social and institutional contexts. Exploration of ways of taking action to create change and bridge differences at interpersonal and social/community levels. P/NP or letter grading.

80. FITTE Placement Training through Exercise and Diet. (1) Lecture, one hour; activity, two hours. Success in undergraduate experience is very much influenced by attributes beyond intellectual competence, including personal and social, and environmental factors that influence college students’ eating behaviors, physical activity patterns, and body image. Development of individualized student plans for eating well, being active, and feeling good about their bodies. Learning of practical skills with application to nutrition, physical activity, positive body image, stress management, and other aspects of wellness as students participate in critical evaluation of popular diets, healthy body weights, fitness, supplements, media body ideals, and self-destructive thoughts. P/NP grading.

89. Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to upper-division lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward Honors candidacy of eligible students. Honors content noted on transcript. P/NP or letter grading.

89HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors and department honors programs. Designed as adjunct to lower-division lecture course. Individual study with lecture course instructor to explore topics in greater depth, through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.


99. Student Research Program. (1 to 2) Tutorial (supervised research or other scholarly work), three hours per week per unit. Entry-level research for lower-division students under guidance of faculty mentor. Students must be in good academic standing and enrolled in minimum of 12 units. Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP grading.

Upper-Division Courses

100. Introduction to Community Health Sciences. (4) Lecture, four hours. Limited to students in Public Health minor and graduate students. Introductory course to provide non-Community Health Sciences MPH students and qualified undergraduate students with broad and comprehensive overview of concepts, empirical research, and practice in community health sciences, with emphasis on social context and determinants of population health and planning of interventions to protect and improve public health. May be repeated for credit with topic change. Letter grading.


130. Nutrition and Health. (4) Lecture, three hours; laboratory, one hour. Preparation: one biology course, one chemistry course. Basic and clinical nutrition theory and practice for students in health sciences curriculum. P/NP or letter grading.

131. Healthy Food Access in Los Angeles: History and Practice of Urban Agriculture. (4) Lecture, three hours; laboratory, 90 minutes. History and recent revival of urban agriculture (gardening) in Los Angeles area. Exploration of how urban gardening is response to crises such as U.S. obesity epidemic and resulting health problems. Critiques of industrial agriculture in California and elsewhere in U.S. Exploration of how urban agriculture and community food/active living and consumer movements that advocate access to healthy food to low-income residents. Biweekly hands-on gardening laboratory in Sunset Canyon Recreation Center Organic Garden. P/NP or letter grading.

132. Health, Disease, and Health Services in Latin America. (4) Lecture, four hours. Introduction to health, disease, and health services in Latin America, with emphasis on epidemiology, health administration, medical anthropology, and nutrition. P/NP or letter grading.

M140. Health Issues for Asian Americans and Pacific Islanders: Myth or Model? (4) (Same as Asian American Studies M129). Lecture, three hours; fieldwork, one hour. Introductory overview of mental and physical health issues of Asian Americans and Pacific Islanders; identification of health status indicators and barriers to both care delivery and research for these populations. Letter grading.

160. Intergroup Dialogue: Theory and Practice of Peer Facilitation. (4) Lecture, four hours. Recommended prerequisite: course in issues of difference, conflict, and community to facilitate understanding between social/cultural groups. Peer facilitator training course to develop understanding of theoretical and research foundations of intergroup dialogue, peer-facilitated discussions involving relationship building (and coalition building) through thoughtful engagement around different social identity issues. Study of variety of techniques, tools, and strategies to support students in their capacity to implement sustained dialogues with students from other social identity groups. Letter grading.

161. Intergroup Dialogue: Training Practicum. (4) Seminar, four hours. Enforced prerequisite: course 160. Application and further development of content and skills learned in course 160. Co-facilitation of weekly dialogues with students on specific identity theme and focus on development of knowledge and skills in areas of group dynamics, conflict intervention, communication and community, and mental health effects of structural inequality as they relate to discussions of justice, and multicultural issues in these areas and discussions of ongoing dialogue dynamics. May be repeated once for credit. Letter grading.

179. Field Studies in Cancer Control. (4) Lecture, two hours; discussion, one hour; fieldwork, four hours. Required: Molecular, Cell, and Developmental Biology 50. Designed for juniors/seniors. Opportunity for students to become involved in cancer control through classroom discussion, lectures, service in field, and guided research. Biology of cancer, its prevention, early detection, treatment, and rehabilitation. Letter grading.

181. Campus/Community Health and Wellness Promotion: From Theory to Practice. (4) Lecture, two hours; discussion, two hours. Limited to juniors/seniors. Theory, training, and experience in health/wellness promotion and health/wellness education in selected campus communities. Participation in supervised small-group program planning project. Letter grading.

187A-187B. Introduction to Interventions for At-Risk Populations. (4–4) Lecture, three hours; committee meetings/community service, two to six hours. Course 187A is requisite to 187B. Designed for juniors/seniors. Health and social needs/services from primarily public health perspective, drawing on related academic/professional disciplines. Community-based service learning strategy used to enhance knowledge of issues covered. As part of learning, students trained as caseworkers and community members. Letter grading.

188A-188B. Special Courses in Community Health Sciences. (4–2) Lecture, two hours (188A) and three hours (188B). Examination of current topics or particular subfields or experimental or temporary courses in community health sciences. Specific topic areas vary with instructor. May be repeated for credit with topic change. P/NP or letter grading.

189. Advanced Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to undergraduate lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

189HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors and department honors programs. Designed as adjunct to upper-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.
195. Community or Corporate Internships in Community Health Sciences. (4) Tutorial, six hours. Limited to juniors/seniors. Internship in supervised setting in community agency or business. Further supervision provided by public health organization for which students do internship. Students meet on regular basis with instructor and provide periodic reports of their experience. May be repeated for credit. Individual contract with supervising placement sponsor required. P/NP or letter grading. 

197. Individual Studies in Community Health Sciences. (2 to 4) Tutorial, four hours. Limited to juniors/seniors. Individual intensive study, with scheduled meetings with instructor and regular and frequent contact with instructor. Assigned reading and tangible evidence of mastery of subject matter required. May be repeated for credit. Individual contract required. P/NP or letter grading. 

Graduate Courses 

200. Global Health Problems, (4) Lecture, two hours; discussion, two hours. Overview of health profile of world in the century. Global health problems and methods by which they have been dealt in context of Alma Ata goal of health for all by year 2000. Letter grading. 

205. Immigrant Health. (4) Lecture, two hours; discussion, one hour. Limited to graduate students. Overview of key topics in public health for documented and undocumented immigrants and refugees in U.S. Demographics, health status, behavioral risk factors, and social determinants, health and human rights, and access to healthcare and prevention services. Analysis of public policy across topics. Builds skills necessary to develop integrated approach to health of immigrant populations. Letter grading. 

M208. Introduction to Demographic Methods. (4) (Same as Biostatistics M208, Economics M208, and Sociology M208.) Lecture; three hours; outside work, eight hours. Preparation: one introductory statistics course. Introduction to methods of demographic analysis. Topics include demographic rates, standardization, decomposition of differences, life tables, survival analysis, cohort analysis, birth interval analysis, models of population growth, stable populations, population projection, and demographic data sources. Letter grading. 


210. Community Health Sciences, (4) Lecture, three hours; discussion, one hour. Preparation: one social sciences course. Basic concepts, relationships, and policy issues in field of community health, variability in definitions of health and illness, correlates of health and illness behavior, impact of social and community structure on health status, major contemporary approaches to health promotion and health education at community level. Use of comparative international perspective. Letter grading. 

211A-211B. Program Planning, Research, and Evaluation in Community Health Sciences. (4–4) Lecture, three hours; discussion, one hour; outside assignments, four hours. Preparation: course 211A is requisite to 211B. Development, planning, and administration of public health programs in community settings. Introduction to range of research methods and techniques used in designing and conducting health research with particular emphasis on evaluation of community-based public health programs. Course organized into three segments. Letter grading. 

211A. Requisite: course 211A. 

211B. Requisites: courses 211A, and Biostatistics 100B or Epidemiology 100 or Public Health 200A and 200B. 

212. Advanced Social Research Methods in Health. (4) Lecture, four hours; laboratory, two hours; outside assignments, eight hours. Requisites: courses 211A, 211B, Biostatistics 100B, 406. Problems of health survey design and data collection; measurement issues in health research and use of computers for analysis of data. Use of computer software for analysis of large-scale survey data using various statistical techniques. Letter grading. 

213. Research in Community and Patient Health Education. (4) Lecture, three hours; discussion, two hours. Requisite: identification of critical research concepts, principles and re- search methodologies taught through microcomputer and mainframe computer management and analysis of program databases. Letter grading. 


M216. Qualitative Research Methodology. (4) (Same as Anthropology M284A.) Seminar, three hours; laboratory, one hour. Intensive seminar/field course in qualitative research methodology. Emphasis on using qualitative methodology in research and evaluation related to healthcare. Letter grading. 

M217. Current Issues in Food Studies. (4) (Same as Urban Planning M216.) Seminar, three hours. Limited to Food Studies Graduate Certificate Program students. Food is considered a subject given that production, procurement, preparation, consumption, and exchange of edible matter is biologically vital to human growth, development, and function and critical to many aspects of society and culture. Food studies is growing cross-disciplinary field of research, teaching, and advocacy that encompasses and draws from cultural anthropology and geography, food law and policy, urban planning, literature, history, public health, nutrition, environmental science, molecular and cell biology, science and technology studies (STS), agronomy, and other disciplines. Survey of some of these wide-ranging topics and disciplines that define food studies. Letter grading. 

M218. Questionnaire Design and Administration. (4) (Same as Epidemiology M218.) Lecture, four hours. Requisite: course 210. Preparation: one formal or social demography course, one graduate epidemiology course. Survey design and data collection; measurement issues in health research and use of computers for analysis of data. Use of computer software for analysis of large-scale survey data using various statistical techniques. Letter grading. 


220. Racism and Public Health: Social Epidemiologic Approaches. (4) Seminar, two hours; discussion, one hour. Requisites: courses 100B, 100C, 100D, or permission of instructor. Limited to Community Health Sciences PhD students. Overview of literature on the effects of racism on health and health inequalities. Letter grading. 


222. Understanding Fertility: Theories and Methods. (4) (Same as Sociology M206.) Lecture, three hours. Limited to students with at least one formal statistics course. Requisite: Biostatistics 100A. Application of demographic theories and methods to describe fertility trends and differentials and social and proximate determinants of fertility, with emphasis on understanding key proximate determinants. For advanced students interested in population, demography of health, and social demography. Letter grading. 

224. Social Determinants of Nutrition and Health. (4) Lecture, two hours; discussion, one hour. Preparation: one basic nutrition course. Health promotion strategies aimed at reducing chronic disease risk through lifestyle changes have not been particularly successful in addressing nutritionally disadvantaged groups. Overview of literature supporting relationship between socioeconomic disadvantage and food-related health conditions such as obesity, diabetes, and cancer. Exploration of development of plausible pathways from perspectives of multi-disciplines (economics, nutrition, sociology, and more), with focus on linkages between social and physical environment (built environment) and food equity/access; discussion of how food may be catalyst for improving social capital and health. Discussion of examples of local and international efforts to improve access to healthy foods and to limit access to unhealthy foods. Exploration of methods for assessing social capital and food-related aspects of neighborhood environments. S/U or letter grading. 

225. Writing for Publication in Public Health. (4) Lecture, four hours; discussion, one hour. Preparation: one formal or social demography course. Development of skills for advanced doctoral students in producing peer-review-quality research papers, with focus on presentation and dissemination of empirical research papers. Examination of other types of manuscripts (e.g., reviews) included. Letter grading. 

226. Women’s Health and Well-Being. (4) Lecture, four hours; seminar, three hours. Limited to interdisciplinary perspective critically examining research on women’s health. Overview of scientific inquiry and methods; gender roles; status attainment and medical sociology; overview of current data on women’s health. Letter grading. 

227. Conceptualizing and Measuring Structural Racism. (4) Lecture, three hours. Limited to graduate students. How structural racism and other forms of systemic inequality may contribute to health inequities. Moves beyond interpersonal experiences of racism to focus on ways to conceptualize, measure, and investigate racism perpetuated and maintained by social institutions. Letter grading. 

M228. Introduction to Mixed Methods Research. (4) (Same as Health Policy and Management M228.) Seminar, three hours; discussion, one hour. Limited to graduate students. Highly recommended: Health Policy and Management 225A and 225B, or completion of coursework in basic research design and methods. Introduction to mixed methods research, with emphasis on its application to public health research. Prepares students interested in true mixed method research designs and to design mixed methods research investigations for health issue of interest. Study of different mixed methods research designs, including qualitative and quantitative research, clinical and health services research, including feasibility studies, convergent parallel design, sequential mixed methods, and multiphase studies. Use of combination of didactic and applied techniques. S/U or letter grading.
229. Policy and Public Health Approaches to Vio- lence Prevention, (4) Lecture, four hours. How policies relate to violence and development of skills to transmit this knowledge. Examination of wide range of policy topics and how each might be associated with reduction/increase in violence/violent injury. Letter grading.

230. Family and Sexual Violence. (4) Lecture, three hours; community, three to four hours. Examination of rape, incest, and spouse and elder abuse. Presentation of theories about causation, outcomes of research on family and sexual violence, as well as response of so- cial service, medical, and criminal justice systems. Letter grading.


M232. Determinants of Health. (4) (Same as Health Policy M242.) Lecture, three hours; discussion, one hour. Designed for graduate students. Critical analysis of models for what determines health and evidence for social, economic, environmental, genetic, health system, system, individual, and demographic factors—elements and central population-based approaches to reduction/increase in violence/violent injury. Letter grading.


M234. Obesity, Physical Activity, and Nutrition Seminar. (4) (Same as Health Policy M235.) Seminar, three hours; outside study, one hour. Designed for graduate students. Multidisciplinary introduction at graduate level to epidemiology, physiology, and cur- rent state of preventive and therapeutic interventions for obesity in adults and children, including public health policy approaches to healthy nutrition and physical activity promotion. S/U or letter grading.

235. Influence of Social and Physical Environment on Racial Health Disparities. (4) Seminar, three hours. Preparation: at least one biostatistics or epidemiology course. Limited to graduate students. Examination of social and economic determinants of health; discussion of health disparities; and barriers to access and evaluation of programs designed to reduce health disparities. Letter grading.

236. Evolving Paradigms of Prevention: Interven- tions in Emergency Management. (4) (Same as Health Policy M290.) Seminar, three hours; fieldwork, one hour. Designed for graduate students. Introduction to use of early childhood interventions as means of preventing adverse mental outcomes. Discussion of conceptual development of vulnerability approaches to assessment, models of service delivery, evaluation and cost-benefit issues, funding, and other policy issues. Letter grading.

237. Evolving Paradigms of Prevention: Interven- tions in Adolescence. (4) Seminar, three hours. Adoles- cent health and interventions, with focus on sex, al- cohol, and drug use. Focus on adolescent identity de- velopment, family, and peer influence; discussion of gay, lesbian, bisexual, and transgender issues, compo- nents of sexual risk-taking behavior, and alcohol and drug use (e.g., peer influence, changes in brain ac- tivity) and programs that have been developed to address these behaviors. Building of skills to work with adolescent populations and in community-based settings. Letter grading.

M238. Race, Ethnicity, and Culture as Concepts in Practice and Research. (4) (Same as Asian American Studies M239.) Seminar, three hours. Integration of cross-cultural findings in healthcare with current (U.S.) healthcare system paradigms to facili- tate development of culturally based public health programs and train culturally competent practitioners. Letter grading.

240. Child and Reproductive Health in Communi- ties: Global Environmental Perspective. (4) Lec- ture, three hours; laboratory exercise, one hour. Preparation: at least one biostatistics or epidemiology course; Environmental Health 100 or 200A. Recommended requisite: Environmental Health Sciences 100. Limited to graduate students. Examination of development of child and reproductive health in relation to environmental factors in interplay with socio- economic and biological factors. Environmental in- fluences are responsible for one quarter of total burden of disease worldwide, and for more than one thirds of burden of disease among children most of them living in resource-poor countries and communities. Discussion of impacts of qualitatively different, and potentially modifying, factors such as access to safe water or ur- banization, as well as environmental contribution to high-burden outcomes in childhood and reproduction. Focus on lower income settings and discussion of rel- evant population-based approaches to assessment and intervention. Letter grading.


246. Women’s Roles and Family Health. (4) Lec- ture, two hours; discussion, one hour. Rapidly changing roles of women throughout world are having important effects on women’s own health and that of their families. Analysis of multidisciplinary research from both developing and industrialized counties to provide basis for in-depth discussion of programmatic and policy implications. Letter grading.

247. Population Change and Public Policy. (4) Lec- ture, four hours. Examination of international popula- tion change, population-related policies, and public health implications of demographic processes. Letter grading.

M249L. Ethical Theory and Applications in Public Health. (4) (Same as Health Policy M258S.) Lecture, four hours. Requisites: Health Policy 200A, 200B. In- troduction to ethical theories and critical ethical issues pertaining to healthcare policy and healthcare mana- gement. Research, writing, and discussion on variety of topics related to health and human rights to en- hance professionalism, leadership, and systems thinking and improve student sensitivity to needs of patients, coworkers, and fiduciary shareholders. How ethics are foundation of leadership. Letter grading.

M250. HIV/AIDS and Culture in Latin America. (4) (Same as Latin American Studies M262.) Seminar, three hours. Exploration of cultural, political, and public health context for people living with and at risk for HIV/AIDS and their families in Latin America. Public health aspects, including epidemiology, morbidity concerns and community interventions, medical anthropological study of experience of those impacted, and grass-roots responses, as well as political/econo- mic and political context addressing poverty and struc- tural violence. Letter grading.

M251. Nutritional Epidemiology I. (4) (Same as Epi- demiology M254.) Lecture, two hours; discussion/lab- oratory exercise, one hour. Introduction to nutrition and epidemiology courses. Review of all aspects of contemporary nutrition sciences that re- quire application of epidemiological principles and methods, ranging from cohort to case-control investiga- tion to evidence-based regulatory assessment of health claims for foods. Experience in actual world of collecting, analyzing, and interpreting data related to nutrition and health or disease outcomes. S/U or letter grading.

M252. Health Policy Analysis. (4) (Same as Health Policy M233.) Lecture, three hours. Requisites: courses 211A, 211B, 295, Epidemiology 100, one survey methods course. Previous international experi- ence strongly encouraged. Overview of intentional dis- traction, focus on health care for underserved populations and limited population. Principal focus on health consequences of these events and strategies to address health issues. Letter grading.

M255. Interdisciplinary Response to Infectious Dis- ease Emergencies: Public Health Perspective. (4) (Same as Medicine M256, Nursing M298, and Oral Bi- ology M256.) Lecture, three hours; discussion, one hour. Designed to instill in professional students ideas on common emergency health problems and coordi- nate response, with specific attention to bioterrorism. Examination of tools to help students prevent, detect, and intervene in infectious disease emergencies. Inter- disciplinary sessions also attend to role of representatives of different agencies involved in disease re- sponses and visit one of area’s state-of-art emergency management facilities. Letter grading.

257. Program Planning in Community Disaster Pre- paredness. (4) Lecture, four hours; outside study, two hours. Recommended requisites: courses 211A, 211B, 295. Health education and emergency management princi- ples combined to design, plan, implement, and eval- uate community disaster preparedness programs, in- cluding needs assessment, identification of target population, objective writing, program planning, and process, outcome, and impact evaluation. Letter grading.

258. Cooperative Interagency Management in Di- sasters. (4) Lecture, four hours. Recommended requi- site: course 295. Designed for graduate students. Broad overview of how different agencies involved in disaster responses work together to handle impact of mass population emergencies. Identification of role of local, state, and federal governments, nonprofit and private sector organizations, media, and healthcare fa- cilities in disaster situations. Students meet with repre- sentatives of different agencies involved in disease re- sponses and visit one of area’s state-of-art emergency management operations facilities. Letter grading.


M263. Social Demography of Los Angeles. (4) (Same as Sociology M263L.) Lecture, three hours. De- signed for graduate students. Use of city of Los An- geles to examine major social and demographic fac- tors that characterize cities in U.S. Examination of role of demographic factors in affecting health outcomes. Letter grading.

M264. Latin America: Traditional Medicine, Sha- manism, and Folk Illness. (4) (Same as Anthropology M233Q and Latin American Studies M264.) Lecture, three hours. Recommended preparation: course 132, bilingual English/Spanish skills. Examination of role of traditional medicine and shamanism in Latin America and exploration of how indigenous and mestizo groups diagnose and treat illness by treating western- defined diseases with variety of health-seeking methods. Examination of art, music, and ritual and case examples of religion and healing practices via interviews and anthropological fieldwork.

270A-270B. Foundations of Community Health Sci- ences. (4–4) Lecture, four hours. Enforced requisite: course 210. Course 270A is enforced requisite to 270B. Limited to departmental doctoral students. In-
depth of analysis of theories, methods, and research on which community health sciences are based. Letter grading.


M272. Social Epidemiology. (Same as Epidemiology M272.) Lecture, four hours. Requisite: Epidemiology 100 or Public Health 200A and 200B. Relationship between sociological, cultural, and psychosocial factors in etiology, occurrence, prevalence, and severity of disorder and mortality; emphasis on lifestyles and other socioscientific factors associated with general susceptibility to disease and subsequent mortality. Letter grading.


277. Advanced Community Health Education. (4) Lecture, two hours; discussion, two hours. Requisite: course 210. Before planning educational components of health program, one must assess behaviors and factors influencing health program. Conceptual, theoretical, and evaluation skills developed and applied in constructing community-based educational program. Letter grading.

M278. Work and Health. (Same as Environmental Health Sciences M278.) Lecture, three hours; practicum, one hour. Recommended preparation: graduate-level methods/statistics course, basic epidemiology. Designed for graduate students. Exploration of implications of physical and psychosocial health in context of newly emerging discipline. Focus on psychosocial models, measurement (including hands-on experience), contextual factors (gender, ethnicity, social class), and how work stressors can be ameliorated. S/U or letter grading.

281A. Capstone Seminar: Health Promotion and Education. (4) Seminar, 90 minutes; discussion, 90 minutes. Enforced requisite: course 210. Current problems and issues in promotion and education (e.g., nutrition, family health, AIDS/HIV, minority health); learning from presentations and critical discussions of master’s project reports completed under faculty supervision. Letter grading.

281B. Capstone Seminar: Health Promotion and Education. (2) Seminar, one hour; discussion, one hour. Current problems and findings in health promotion and education (e.g., nutrition, family health, AIDS/HIV, minority health); learning from presentations and critical discussions of master’s project reports completed under faculty supervision. Letter grading.

282. Social Marketing for Health Promotion and Communication. (4) Lecture, three hours; fieldwork, one hour. Requisite: course 210. Planning, creating, implementation, and evaluation of comprehensive health communication campaigns, including use of social marketing principles and strategies of audience research, marketing psychology, creative message development, branding, comprehensive media use for dissemination, transmedia. Competencies: conducting focus group interviews, creating and evaluating effective health campaigns, critical assessment of existing campaigns. Letter grading.

283. Evidence-Based Health Promotion Programs for Older Adults. (4) Seminar, three hours. Requisite: course 210. Graduate seminar intended to explore sociocultural determinants of health-related behaviors among aged. Letter grading.

284. Sociocultural Aspects of Mental Health. (4) Discussion, three hours. Designed for graduate students, this seminar explores how society shapes mental health of its members and lives of those who have been identified as mentally ill. Group differences (e.g., gender, ethnicity) in diagnosis and how it is socially constructed. Letter grading.

286. Doctoral Roundtable in Community Health Sciences. (4) Seminar, two hours. Designed for departmental doctoral students who must enroll every term until they are advanced to candidacy. Interactive seminar with focus on research process and social mechanisms in science. May be repeated for credit. S/U grading.

M287. Politics of Health Policy. (Same as Health Policy M287.) Lecture, three hours; discussion, one hour. Requisites: course 210, or Health Policy 200A and 200B. Examination of politics of health policy process (e.g., the role of ideology and structure of institutions; economic and social factors; interest groups, classes, and social movements; media and public opinion; and other factors. Letter grading.

288. Health Communication in Popular Media. (4) Lecture, three hours; discussion, one hour. Requisites: course 210 or prior social sciences courses. Media utilization, media effects, media content, media advocacy, media literacy, health journalism, video and new media, new public health, and the role of audience in health communication, design of health communication materials using digital media that integrates practice and theory and includes websites, print materials, short videos, curricula, and training materials. Lecture, three hours; discussion, one hour. Letter grading.

290. Race, Class, Culture, and Aging. (4) Lecture, three hours; discussion, one hour. Experience of aging for African American, Latino, and Asian elderly examined in context of their families, communities, and nation. Exploration of cultural and structural influences on health and lived experiences of those elders. Letter grading.

291. Health Policy and Aged. (4) Lecture, three hours; discussion, one hour. Examination of political, economic, and social forces that shape health policy for aged, identifying failings in those policies within framework of broader health policy problems. Letter grading.

292. Information Technology for Health Promotion and Communication. (4) Lecture, three hours; field practice, one hour. Requisites: course 210 or prior social sciences courses. Health literacy, Internet use and health communication, design of health communication materials using digital media that integrates practice and theory and includes websites, print materials, short videos, curricula, and training materials. Lecture, three hours; discussion, one hour. Letter grading.
Preparing for the Major
Required: (1) Two courses from the Comparative Literature 1, 2, or 4 series (with approval of the director of undergraduate studies, a comparable and appropriate lower-division course in another department may be substituted for one of the courses), (2) completion of the College Writing requirement, and (3) literary proficiency in at least one language other than English, to be demonstrated by admission into one upper-division literature course in the original language.

Transfer Students
Transfer applicants to the Comparative Literature major with 90 or more units must complete as many of the following introductory courses as possible prior to admission to UCLA: one English composition course, two literature survey courses, at least one of which must be world literature, and the equivalent of at least one year of foreign language. Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

The Major
Required: Ten courses, of which (1) five must be from comparative literature offerings, including Comparative Literature 100 and at least four additional comparative literature courses selected from M101 through 197, (2) three upper-division literature courses using original language texts in the primary language area, and (3) two upper-division literature courses using original language texts in the secondary language area (students may petition the undergraduate adviser to take two upper-division literature courses in translation if their primary literature area is in a language other than English).

Honors Program
The honors program is open to Comparative Literature majors with a 3.5 departmental and a 3.25 overall grade-point average. Eligible interested students should contact the undergraduate adviser to enter the program.

Honors candidates must complete all requirements for the major and an honors research paper (in addition to regular course requirements) in two of the four required upper-division comparative literature courses. Candidates must also complete a fourth course in the primary literature area and Comparative Literature 198 with a core faculty member in which they write a senior honors paper of approximately 25 pages.

Comparative Literature Minor
The Comparative Literature minor offers students interested in literature and the humanities the opportunity to gain insight into the critical problems and theories addressed by comparative literature and to apply that knowledge in literature and comparative literature courses.

To enter the minor students must have fulfilled the College Writing requirement, have completed 40 units with an overall grade-point average of 2.0 or better, have taken at least one year or equivalent of a language other than English, and file a petition with either the faculty or staff undergraduate adviser, 3508 Kaplan Hall, 310-825-7650.

Required Courses (28 units minimum): (1) Four upper-division comparative literature courses (one course from Comparative Literature 1A through 4D may be substituted), (2) two upper-division courses in one literature (e.g., Arabic, Chinese, English, French, German, Korean, Russian, Spanish) in the original language, and (3) one upper-division course in a second literature in the original language (one level-six foreign language course may be substituted). If students complete two upper-division courses in a language other than English, they may petition to take one upper-division course taught in English translation to fulfill the third requirement.

A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor. Each minor course must be taken for a letter grade, and students must have an overall grade-point average of 2.0 or better in the minor. Successful completion of the minor is indicated on the transcript and diploma.

Graduate Study
Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Division website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Graduate Degrees
The Department of Comparative Literature offers Master of Arts (MA), Candidate in Philosophy (CPhil), and Doctor of Philosophy (PhD) degrees in Comparative Literature.

Comparative Literature
Lower-Division Courses
1A. World Literature: Antiquity to Middle Ages. (5)
Lecture, three hours; discussion, one hour. Enforced requisite: satisfaction of Entry-Level Writing requirement. Not open for credit to students with credit for course 2AW or 4AW. Study of major texts in world literature, with emphasis on Western civilization. Texts include major works and authors such as Iliad or Odyssey; Greek tragedies, portions of Bible, Virgil, Petronius, St. Augustine, and others such as Gilgamesh or Tristan and Isolde. P/NP or letter grading.

1B. World Literature: Middle Ages to 17th Century. (5)
Lecture, three hours; discussion, one hour. Enforced requisite: satisfaction of Entry-Level Writing requirement. Not open for credit to students with credit for course 2CW or 4CW. Study of world literature, with emphasis on Western civilization as it grapples with its past and with other civilizations. Examination of works such as Dante's Divine Comedy, Cervantes' Don Quixote, Shakespeare's King Lear, and Sor Juana's Mexican poetry. P/NP or letter grading.

1C. World Literature: Age of Enlightenment to 20th Century. (5)
Lecture, three hours; discussion, one hour. Enforced requisite: satisfaction of Entry-Level Writing requirement. Not open for credit to students with credit for course 2CW or 4CW. Study of major

Comparative Literature
Lower-Division Courses
1A. World Literature: Antiquity to Middle Ages. (5)
Lecture, three hours; discussion, one hour. Enforced requisite: satisfaction of Entry-Level Writing requirement. Not open for credit to students with credit for course 2AW or 4AW. Study of major texts in world literature, with emphasis on Western civilization. Texts include major works and authors such as Iliad or Odyssey; Greek tragedies, portions of Bible, Virgil, Petronius, St. Augustine, and others such as Gilgamesh or Tristan and Isolde. P/NP or letter grading.

1B. World Literature: Middle Ages to 17th Century. (5)
Lecture, three hours; discussion, one hour. Enforced requisite: satisfaction of Entry-Level Writing requirement. Not open for credit to students with credit for course 2CW or 4CW. Study of world literature, with emphasis on Western civilization as it grapples with its past and with other civilizations. Examination of works such as Dante's Divine Comedy, Cervantes' Don Quixote, Shakespeare's King Lear, and Sor Juana's Mexican poetry. P/NP or letter grading.

1C. World Literature: Age of Enlightenment to 20th Century. (5)
Lecture, three hours; discussion, one hour. Enforced requisite: satisfaction of Entry-Level Writing requirement. Not open for credit to students with credit for course 2CW or 4CW. Study of major
texts in world literature, with emphasis on Western civilization. Authors include Swift, Voltaire, Diderot, Rousseau, Goethe, Flaubert, Ibsen, Strindberg, Dostoevsky, Kafka, Joyce, Woolf, and Stevens. P/NP or letter grading.

1D. Great Books from World at Large. (5) Lecture, three hours; discussion, one hour. Enforced requisite: satisfaction of Entry-Level Writing requirement. Not open for credit to students with credit for course 2D or 4DW. Study of major literary texts usually overlooked in canon of Western literature. Texts from at least three of following areas read in any given term: African, Caribbean, East Asian, Latin American, and Middle Eastern literature. P/NP or letter grading.

1E. Social Media and Storytelling: Comparing Cultures. (5) Lecture, two hours; discussion, two hours. Enforced requisite: satisfaction of Entry-Level Writing requirement. Study of social media as platform for storytelling, with core focus on three distinct cultures: U.S., China, and Russia. History, form, and various functions of social media. Examination of how we tell stories about ourselves and how we interpret digital narratives we see, hear, or read from organizations near and far. Analysis of networked narratives encountered online. P/NP or letter grading.

2AW. Survey of Literature: Antiquity to Middle Ages. (5) Lecture, two hours; discussion, two hours. Enforced requisite: English Composition 3 or 3H or English as a Second Language 36. Not open for credit to students with credit for course 1A or 4AW. Study of selected texts from antiquity to Middle Ages to 17th century, with emphasis on literary analysis and expository writing. Texts may include works and authors such as Sappho, Greek tragedies, Aeneid, Petronius, Beowulf, de Fradin, Taranis and Iseult, One Thousand and One Nights, Popul Vuh. Satisfies Writing II requirement. Letter grading.

2BW. Survey of Literature: Middle Ages to 17th Century. (5) Lecture, two hours; discussion, two hours. Enforced requisite: English Composition 3 or 3H or English as a Second Language 36. Not open for credit to students with credit for course 1B or 4BW. Study of Middle Ages to 17th century, with emphasis on literary analysis and expository writing. Texts may include works by authors such as Chaucer, Dante, Cervantes, Marguerite de Navarre, Shakespeare, Calderón, Molère, and Racine. Satisfies Writing II requirement. Letter grading.

2CW. Survey of Literature: Age of Enlightenment to 20th Century. (5) Lecture, two hours; discussion, two hours. Enforced requisite: English Composition 3 or 3H or English as a Second Language 36. Not open for credit to students with credit for course 1C or 4CW. Study of Age of Enlightenment to 20th century, with emphasis on literary analysis and expository writing. Texts may include works and authors such as Swift, Voltaire, Diderot, Rousseau, Goethe, M. Shelley, Flaubert, Ibsen, Strindberg, Dostoevsky, Kafka, Joyce, Beckett, L. Hughes, and Garcia Marquez. Satisfies Writing II requirement. Letter grading.

4BW. Literature and Writing: Middle Ages to 17th Century. (9) Discussion, four hours. Enforced requisite: English Composition 3 or 3H or English as a Second Language 36. Not open for credit to students with credit for course 1B or 2BW. Study and discussion of selected texts from Middle Ages to 17th century, with emphasis on literary analysis and expository writing. Texts may include works and authors such as Chaucer, Dante’s Divine Comedy, Cervantes’ Don Quixote, Shakespeare’s plays, and One Thousand and One Nights, Christine de Pizan, Popul Vuh, Molère, and Racine. Satisfies Writing II requirement. Letter grading.

4CW. Literature and Writing: Age of Enlightenment to 20th Century. (9) Discussion, four hours. Enforced requisite: English Composition 3 or 3H or English as a Second Language 36. Not open for credit to students with credit for course 1C or 2CW. Study and discussion of Age of Enlightenment to 20th century, with emphasis on literary analysis and expository writing. Texts may include works by authors such as Swift, Voltaire, Diderot, Rousseau, Goethe, M. Shelley, Flaubert, Ibsen, Strindberg, Dostoevsky, Gogol, Kafka, Joyce, Beckett, L. Hughes, and Garcia Marquez. Satisfies Writing II requirement. Letter grading.

9. Virtual Realities: Introduction to Humanities. (5) Lecture, two hours; discussion, two hours. What exactly are humanities? Position of humanities as not science is becoming unclear as human communication, thought, and culture are increasingly tied to technology. Examination of various disciplines within humanities at UCLA to define their place in today’s society, contemplate their possible function in tomorrow’s world, and determine to whom humanities will and will not cater in future. P/NP or letter grading.

9. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of topics and questions about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.


9. Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to lower-division lecture course. Exploration of topics in greater depth through supplemental readings, in-class discussions, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

9HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to lower-division lecture course. Individual consultation with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

99. Student Research Program. (1 to 2) Tutorial (supervised research or other scholarly work), three hours per week per unit. Entry-level research for lower-division students. Undergraduate students must be in good academic standing and enrolled in minimum of 12 units (excluding this course). Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP grading.

Upper-Division Courses

100. Introduction to Literary and Critical Theory. (5) Lecture, four hours. Preparation: satisfactory of Entry-Level Writing and College Writing requirements. Requirements: two courses from lower-division literature 1 or 2 series or English 10 series or Spanish 60 series, etc. Seminar-style introduction to discipline of comparative literature presented through series of texts illustrative of its form and practice. Letter grading.


102. Classical Tradition: Epic. (4) Seminar, three hours. Required for upper-division literature majors. Analysis of Iliad, Odyssey, Aeneid, Gerusalemme Liberata, and Paradise Lost in both relation to their contemporary societies and to literary traditions. Emphasis on director’s own readings of world poetry and of epic texts in relation to history of our culture and to the ancient tradition. P/NP or letter grading.

103. People on Run: Migrants, Minorities, and Multiculturalism in Europe. (4) Seminar, three hours. Problem of migrants and refugees in ongoing crisis of European migration. Exploration of various aspects of European Union and of European multiculturalism in particular. Overview of history of European integration since World War II, as well as more focused examination of ways in which culture and migration have come to dominate discussions of future of what had primarily been conceived of as one economic Union. Offered in summer only. P/NP or letter grading.

104. Art of Film Adaptation. (4) Seminar, three hours. Exploration of the relationship between current popular cultural texts about film adaptation. Exploration of art of film adaptation in broad sense, including transformation of short stories, plays, novels, historical accounts, biographies, paintings, musical compositions, or philo-sophical concepts into multilayered medium of cinema. Adaptations addressed include selection of films from range of cultural and linguistic traditions by contemporary directors such as Kurosawa, Babenco, Rossellini, Hitchcock, Antonioni, Kieslowski, and Taymor. Specific directors, films, and cinematic genres explored depend on letter grading.

C105. Comic Vision. (4) Lecture, three hours. Offered concurrently with course C205. Exploring the theoretical texts about film adaptation. Examination of text and analysis of function and appearance of such archetypal heroes as Achilles, Ulysses, Prometheus, Oedipus, and Orpheus in literature from antiquity to modern period. All works read in translation. P/NP or letter grading.

106. Archetypal Heroes in Literature. (4) Seminar, three hours. Designed for upper-division literature majors. Literary masterpieces, both dramatic and nondramatic, selected to demonstrate varieties of comic expression. Upper-division students read all works in translation. P/NP or letter grading.

110. Comparative Literature. (4) Seminar, three hours. Designed for seniors/juniors. Survey and analysis of function and appearance of such archetypal heroes as Achilles, Ulysses, Prometheus, Oedipus, and Orpheus in literature from antiquity to modern period. All works read in translation. P/NP or letter grading.

108. Autobiography in Francophone and Anglophone Worlds. (5) Seminar, three hours. Designed for juniors/seniors. Focus on number of narratives that use autobiography to situate self in relation to history of nations and biography of family members. Introduction to theories of subjectivity and to genre of self-writing in France, Africa, and Caribbean. Comparisons of works written by Bataille, Apollinaire, Lautreamont, and Dupin, and by Jamaica Kincaid to better understand limits of genre. Texts represent different limit cases of autobiography and can be read as biography, auto/ethnography, and autobiography. Students are encouraged to examine the differences that emerge between autobiographical pact (Lejeune) that some authors create with their readers and liberties that others take with history. Themes include: how way visual culture (film) helps authors make their point, access memory, or create metaphors of self. P/NP or letter grading.
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M110. One Thousand and One Nights/Al Il Layla Wa-Layla. (4) (Same as Arabic M110.) Lecture, three hours. Knowledge of Arabic not required. Since its appearance in Europe in 1704, One Thousand and One Nights is most well-known work of Arabic literature in West. Reproduction of tales more commonly known as Arabian Nights, including history of its translation, contemporary oral performances of tales in Arabic-speaking world, literary emergence of vernacular language. Arabic, Avicennian, and Western appropriations of tales in music, film, and novels (Ravel, Rimsky-Korsakov, Barth, Poe, and Walt Disney). P/NP or letter grading.

111. Historical Methodologies of Comparative Literature. (5) Seminar, three hours. Preparation: satisfaction of Entry-Level Writing and College writing requirements. Requisites: two courses from Comparative Literature 1 or 2 series or English 10 series or Spanish 60 series. Recommended: course 100, Exploration of history of comparative literature discipline and variety of central methodological past and present debates concerning nature of discipline. Introduction to several key theoretical texts from early 20th century to present, addressing these and other related questions: what does it mean to read comparatively? What is significance of reading literature across existing national and linguistic borders? What are criteria for conducting such comparative readings? Is comparative reading more concerned with finding similarities or differences? P/NP or letter grading.


113. Opera in LA Live. (4) Seminar, three hours; field trips. Interpretation of operas currently being performed in Los Angeles from critical perspective of past and present. Course designed in Los Angeles from critical perspective of past and present. Interpretation of operas currently being performed. P/NP or letter grading.

M119. Al-Andalus: Literature of Islamic Spain. (4) (Same as Arabic M115.) Lecture, three hours. Study of literature of Islamic Spain to learn about interaction of Arabic, Jewish, and Christian cultures and to recognize Islamic culture as vital force in European life and letters. P/NP or letter grading.

M120. Women and Literature in Southeastern Europe. (4) (Same as Central and East European Studies M120.) Seminar, three hours. Examination of changing roles of women in Balkan countries (Albania, Bosnia-Herzegovina, Bulgaria, Croatia, Greece, Macedonia, Montenegro, Romania, Serbia, Slovenia, Turkey) in last forty years. Focus on social, cultural, political, and economic factors affecting women’s roles during countries’ transition from agricultural to industrial economy and from communism to post-communism (in former communist countries). Sensitization to complexity of issues in region and helps them better understand multiplicity of causes of present situation. Interdisciplinary study, drawing on sociological, political, and feminist sources and critical thinking of women writers for analysis. Discussion and debating of topics covered in articles, different positions taken by authors, and way in which aspects of these realities are represented by various women writers from region. P/NP or letter grading.

C122. Renaissance Drama. (4) Lecture, three hours. Designed for upper-division literature majors. Broad introduction to subject matter and major types of plays. Renaissance conception of history and literary influences on plays. Readings include works of such dramatists as Tasso, Machiavelli, Lope de Vega, Racine, Jonson, Shakespeare. May be concurrently scheduled with course C222. Undergraduate students read all works in translation, P/ NP or letter grading.

M123. Oral Literature and Performance of Arab World. (4) (Same as Arabic M123.) Lecture, three hours. Introduction to Arabic oral heritage and its role in study of living oral traditions of troubadours, storytellers, oral poets, and performers in Arabic-speaking Middle East. P/NP or letter grading.

M132. Comparative Media Studies. (4) (Same as Russian M132.) Seminar, three hours. History, form, and function of various media. Grounded in political and commercial experience of eastern Europe, comparative investigation of media technologies, today’s confluence of mass media and popular art. Development of media form(s) and content across various times, places, and cultures, with special attention to Slavic phenomena. Letter grading.

M146. Contemporary Arab Film and Song. (4) (Same as Arabic M146.) Seminar, three hours. Exploration of conjunctions between contemporary Arab film and song and between popular cultures and cultures of commitment (tillam). Possible focus on specific Arab film or music. Readings such as writers of official Arab film; feminist Arab film or popular Arab film and song; topics such as nation, gender, and representation or democracy and human rights or censorship, reception, and resistance. May be concurrently scheduled with course C155. Undergraduate students may read all required French texts in translation. P/ NP or letter grading.

C152. Symbolism and Decadence. (5) Seminar, four hours. Designed for upper-division literature majors. Study of symbolist and decadent movements in 19th- and 20th-century English and French poetry and prose, including Mallarmé, Baudelaire, Rimbaud, Verlaine, Mallarmé, Wilde, Yeats, and Eliot. May be concurrently scheduled with course C252. Undergraduate students may read all required French texts in translation. P/ NP or letter grading.

C153. Post-Symbolist Poetry and Poetics. (5) Seminar, four hours. Designed for upper-division literature majors. Study of specific poets and poetics related to them during first half of 20th century. Texts may include poets such as W.B. Yeats, Ezra Pound, T.S. Eliot, Paul Valéry, P.M. Rilke, Gunnar Ekelöf, and Wallace Stevens. May be concurrently scheduled with course C253. Undergraduate students may read all works in translation. P/ NP or letter grading.


C156. Fantastic Fictions. (4) Seminar, three hours. Designed for upper-division literature majors. Introduction to subject matter and major types of fantastic fictions. Study of specific fictions and fictions related to them during past half centuries. Texts may include authors such as Kafka, Woolf, Nabokov, Grass, Christa Wolf, and En quist to focus on development of themes such as shifting authority, gender conflicts, change versus stability, formality, experimentalism, and self-consciousness in narrative. May be concurrently scheduled with course C264. Undergraduate students may read all works in translation but are encouraged to read in original language whenever possible. P/ NP or letter grading.

M160. Holocaust in Literature. (4) (Same as Jewish Studies M167.) Lecture, three hours. Investigation of Holocaust and its manifestations in music and radio, comic strips, movies, plays, novels, and art. Close readings of works and raises wide range of aesthetic and moral questions. P/ NP or letter grading.

M166. Modern Jewish English Literature in English: Diaspora Literature. (4) (Same as Jewish Studies M151A.) Lecture, three hours. Exploration of the complex interplay between traditions of Hebrew, Yiddish, German, Russian, and Italian. Reading in formal aspects of each work. P/ NP or letter grading.

M167. Modern Arabic Literature in English. (4) (Same as Arabic M151.) Lecture, three hours. Designed for upper-division literature majors. Topics may include constructions of otherness in modern Arab culture; East-West debate; memory, trauma, and mourning; violence, narrative, and ethics; globalization, oil, and cultural insurgency; Arab society in transition; national context or questions of reception, exoticism, translation, and marketing. Genres may include prison narratives; novel of terror; memoirs by women and/or by Muslim women; travel writing; testimony, travel narratives; Arabic romantic poetry; literature of pre-1948; rise of Arab novel. Areas may range from ge netic look at Arab world to narrow focus on Maghreb or Middle East as such as Syria, Iraq, Lebanon, or Egypt. May also be organized around Arab literatures written in one specific language, namely English, Arabic, or French. Letter grading.

169. Continental African Authors. (4) Lecture, three hours. Examination of authors from Africa, including Malagasy, Swahili, Wolof, Sango, Kikuyu, and Zulu. May be concurrently scheduled with course C261. P/ NP or letter grading.

M162. Israel Seen through Its Literature. (4) (Same as Jewish Studies M162.) Lecture, three hours. Attempt to impart profound understanding of Israel as seen through its literature. Examination of variety of literary texts—stories, novels, and poems—and reading of them in context of their historical backgrounds. P/ NP or letter grading.

C163. Crisis of Consciousness in Modern Literature. (5) Seminar, three hours. Designed for upper-division literature majors. Study of modern European and American works that are concerned both in subject matter and artistic methods with growing self-consciousness of the condition of modern society, with focus on works of Kafka, Rilke, Woolf, Sartre, and Stevens. May be concurrently scheduled with course C263. Undergraduate students may read all works in translation. P/ NP or letter grading.

C164. Modern European Novel. (5) Seminar, three hours. Designed for upper-division literature majors. Study of modern European novel’s development from 1660 to 21st century. Use of authors such as Hardy, Strindberg, Joyce, Kafka, Woolf, Nabokov, Grass, Christa Wolf, and En quist to focus on development of themes such as shifting authority, gender conflicts, change versus stability, formality, experimentalism, and self-consciousness in narrative. May be concurrently scheduled with course C264. Undergraduate students may read all works in translation but are encouraged to read in original language whenever possible. P/ NP or letter grading.

M165. Holocaust in Literature. (4) (Same as Jewish Studies M167.) Lecture, three hours. Investigation of Holocaust and its manifestations in music and radio, comic strips, movies, plays, novels, and art. Close readings of works and raises wide range of aesthetic and moral questions. P/ NP or letter grading.

M166. Modern Jewish English Literature in English: Diaspora Literature. (4) (Same as Jewish Studies M151A.) Lecture, three hours. Exploration of the complex interplay between traditions of Hebrew, Yiddish, German, Russian, and Italian. Reading in formal aspects of each work. P/ NP or letter grading.

M167. Modern Arabic Literature in English. (4) (Same as Arabic M151.) Lecture, three hours. Designed for upper-division literature majors. Topics may include constructions of otherness in modern Arab culture; East-West debate; memory, trauma, and mourning; violence, narrative, and ethics; globalization, oil, and cultural insurgency; Arab society in transition; national context or questions of reception, exoticism, translation, and marketing. Genres may include prison narratives; novel of terror; memoirs by women and/or by Muslim women; travel writing; testimony, travel narratives; Arabic romantic poetry; literature of pre-1948; rise of Arab novel. Areas may range from ge netic look at Arab world to narrow focus on Maghreb or Middle East as such as Syria, Iraq, Lebanon, or Egypt. May also be organized around Arab literatures written in one specific language, namely English, Arabic, or French. Letter grading.

169. Continental African Authors. (4) Lecture, three hours. Examination of authors from Africa, including Malagasy, Swahili, Wolof, Sango, Kikuyu, and Zulu. May be concurrently scheduled with course C261. P/ NP or letter grading.
C172. Postmodern Novel. (4) Seminar, three hours. Designed for literature majors. Study of postmodern novel as it developed out of modernism. Postmodernism defined in three different ways—philosophically, scientifically, and ecologically. Emphasis on relationship of postmodernism to theories of structuralism and poststructuralism. Readings include authors such as Borges, Beckett, Nabokov, Pynchon, Fuentes, Grass, Böll, and Calvino. Concurrently scheduled with course CM270. P/NP or letter grading.

M175. Race, Gender, Class. (5) (Same as Asian American Studies M165S) Seminar, three hours. Theoretical and literary readings combined to explore three main aspects of social and cultural experience (race, gender, class) as separate but interconnected spheres affecting both minority and majority populations in U.S. Examination of these themes from comparative perspectives. P/NP or letter grading.


177. Comparative Literature of Francophone and Anglophone Caribbean. (5) Seminar, three hours. Designed for undergraduate literature majors. Study of literature and culture of Caribbean basin from New Orleans to Haiti, Martinique, Guadeloupe, Jamaica, Antigua, or Trinidad. Topics include history of French and English colonial influences and Haitian revolution; its literary legacies; emergence of nationalist discourses; search for cultural identity; rhetoric of negritude, global poetics of relation, creolization, and life after UCLA with a humanities degree. P/NP or letter grading.

C178. India Ink: Literature and Culture of Modern South Asia. (5) Seminar, three hours. Survey of significant issues in history of 20th-century Indian literature and culture. Great works of modern Indian culture by such figures as Rabindranath Tagore, Satyajit Ray, Faiz Ahmed Faiz, and U.R. Anantha Murthy, including novels, short stories, and poetry, in class discussions in cultural criticism and historical scholarship. Central and defining issue for 20th-century Indian culture is experience of British colonial rule and massive cultural and material changes that accompanied it. Exploration of manner in which literature and culture have developed in interaction with powerful social forces, such as struggle for national independence from Britain under leadership of Mahatma Gandhi and expansion of Indian diaspora. Concurrently scheduled with course C278. P/NP or letter grading.

M179SL. Movement in Art, Philosophy, and Daily Life. (5) (Same as Middle Eastern Studies M179SL) Seminar, three hours. Exploration of relation between humans and world. Only relevant output of brain, irrespective of what may or may not go on inside it, is control over movements. In living animals, descent or consciousness exists to integrate often complex input and decide on course of action to determine similar, ownership and agency as inseparably associated with biological systems that control our movements. Movements play vital part in constructing psychosocial environment that permeates and surrounds us. Exploration of how animals and humans move and how nature and culture, as well as limitations of mobility, relate to personal and community identity. P/NP or letter grading.

180. Variable Topics: Medical Humanities in Comparative Contexts and Community-Based Learning. (4) Seminar, three hours; fieldwork, three hours. Exploration of topics in medical humanities with community service component, giving pride of place to literary and cultural expressions with other disciplines such as art, philosophy, or sociology. Ways in which medical humanities can make contributions to Los Angeles controversy over health care. Consult Schedule of Classes for topics to be offered in specific term. May be repeated for credit with topic or instructor change. P/NP or letter grading.

186. Undergraduate Research Seminar: Comparative Literature Seminar, three hours. Preparation and research leading to seminar paper in comparative literature. S/U or letter grading.

187. Reading across Culture. (5) Seminar, three hours. What is it we do when we try to understand words, habits, gestures, and beliefs not our own? Do we understand something foreign to us by immersing ourselves in it or by standing apart? Does ability to understand something foreign imply taking universal standpoint? Can we make judgments about beliefs other than our own? Questions of cultural interpretation, how cultural codes are translated, and cross-cultural differences. P/NP or letter grading.

191. Variable Topics in Comparative Literature. (4) Concurrently scheduled with course C278. P/NP or letter grading.

192. Honors Research in Comparative Literature. (2 to 4) Tutorial, three hours. Limited to senior comparative literature honors students. Development and completion of honors thesis or comprehensive project on comparative topic selected by student and under supervision of core faculty member. Students expected to meet regularly with supervisor throughout term. No more than one course may be used to fulfill four-course requirement for Comparative Literature majors. May be repeated once for maximum of 8 units. Individual contract required. Letter grading.

193. Directed Research or Senior Project in Comparative Literature. (2 to 4) Tutorial, three hours. Limited to senior comparative literature honors students. Development and completion of honors thesis or comprehensive project on comparative topic selected by student and under supervision of core faculty member. Students expected to meet regularly with supervisor throughout term. No more than one course may be used to fulfill four-course requirement for Comparative Literature majors. May be repeated once for maximum of 8 units. Individual contract required. Letter grading.

Graduate Courses

200A. Theory of Comparative Literature. (6) Seminar, three hours. Study of theory of literature, with emphasis on genealogy of theoretical problems. S/U or letter grading.

200B. Methodology of Comparative Literature. (6) Seminar, three hours. Requisite: course 200A. Study of methodology of comparative literature, with emphasis on its history. S/U or letter grading.
202. Classical Traditions: Epic, Tragedy, or Comedy. (4) Seminar, three hours. Preparation: reading knowledge of Greek, Latin, or Italian. Analysis of Greek and Roman works and their re-creations in Renaissance and modern periods. Emphasis on how poets build on work of their predecessors. Reading may range from Iliad or Odyssey to tragedies by Sophocles and Euripides or satires by Aristophanes. S/U or letter grading.

C205. Comic Vision. (4) Lecture, three hours. Preparation: reading knowledge of one appropriate foreign language. Study of comic vision and its translation. Drawing on literary, social, cultural, ecological, cross-cultural, cross-linguistic, and cross-confessional contexts. Study rests on premise that comic vision involves a non-normative, selected to demonstrate varieties of comic expression. May be concurrently scheduled with course C161. Graduate students may be concurrently scheduled with course C160. S/U or letter grading.

206. Archetypal Heroes in Literature. (4) Seminar, three hours. Preparation: reading knowledge of one appropriate foreign language. Survey and analysis of archetypal heroes as Achillae, Ulysses, Prometheus, Oedipus, and Orpheus in literature from antiquity to modern period. S/U or letter grading.


220. Topics in Medieval Studies. (4) Seminar, four hours. Preparation: reading knowledge of one appropriate foreign language. Study of texts (aesthetic representations, theoretical reflections by Benjamin, Barthes, Derrida, Rabate, Rickels, and Caruth.) S/U or letter grading.

C222. Renaissance Drama. (4) Lecture, three hours. Preparation: reading knowledge of one appropriate foreign language. Broad introduction to subject matter and theoretical frameworks, with consideration of historical and literary influences on plays. Readings include works of such dramatists as Tasso, Machiavelli, Lope de Vega, Racine, Jonson, Shakespeare. May be concurrently scheduled with course C122. C222 undergraduate students required to prepare papers based on texts read in original languages and to meet as group one additional hour each week. S/U or letter grading.

C271. Imaginary Women. (4) Seminar, three hours. Preparation: reading knowledge of one appropriate foreign language. Study of women’s autobiographies, personal narratives, and fictional representations of women from ancient Greece to the present. Topics may include works of such authors as Sappho, Homer, Plato, Ovid, Petronius, Apuleius, Dante, Shakespeare, Diderot, Voltaire, and Woolf. S/U or letter grading.

C272. Postmodern Novel. (4) Seminar, three hours. Preparation: reading knowledge of one appropriate foreign language. Study of modern European novels to theories of structuralism and poststructuralism in which Arab literatures, authors, and intellectuals have engaged with some persistent and recurrent questions related to their mission, vocation, and commitment (fitzarn) to fundamental concerns of Arab world, to responsible mimetic urgency, and to general uses/potencies of rhetoric and poetics within contexts of profound asymmetries of power, temporalities, and actualities. S/U or letter grading.

CM270. Alternate Traditions: In Search of Female Voices in Contemporary Literature. (5) (Same as Gender Studies CM270.) Seminar, four hours. Designed for graduate students. Investigation of narrative texts by contemporary authors (Genevi very, English, American, Spanish American, African, and Asian women writers) cross-cultural perspective. Common themes, problems, and techniques. Concurrently scheduled with course CM170. S/U or letter grading.

271. Imaginary Women. (4) Seminar, three hours. Preparation: reading knowledge of one appropriate foreign language. Survey and analysis of archetypal heroes as Achillae, Ulysses, Prometheus, Oedipus, and Orpheus in literature from antiquity to modern period. S/U or letter grading.

C274. Crisis of Consciousness in Modern Literature. (5) Seminar, three hours. Preparation: reading knowledge of one appropriate foreign language. Study of modern European and American works that are concerned both in subject matter and artistic methods with growing self-consciousness of human beings and their society, with focus on works of Kafka, Rilke, Woolf, Sartr, and Stevens. May be concurrently scheduled with course C163. Graduate students required to prepare papers based on texts read in original languages. S/U or letter grading.

M251. Literatures and Cultures of Maghreb. (4) (Same as Arabic M255.) Seminar, three hours. Limited to graduate students. Examination of traditionally diverse literatures of Maghreb in their multiple and competing national, regional, and gender languages and cultural forms, Pan-Arabism and postcolonial nationhood, Third-Worldism and economic development, modernity and globalization, immigration and citizenship, soccer industry and Rai music, and to meet as group one additional hour each week. S/U or letter grading.

M252. Symbolism and Decadence. (5) Seminar, four hours. Preparation: reading knowledge of French. Study of symbolist and decadent movements in 19th- and 20th-century French and poetry and prose, including authors such as Baudelaire, Rimbaud, Verlaine, Mallarmé, Wilde, Yeats, and Eliot. May be concurrently scheduled with course C152. Graduates students required to prepare papers based on texts read in original languages and may meet as group one additional hour each week. S/U or letter grading.

M253. Post-Symbolist Poetry and Poetics. (5) Seminar, four hours. Study of specific poets and poetics related to them. Study of 20th-century poetry and may include poets such as W.B. Yeats, Ezra Pound, T.S. Eliot, Paul Valéry, R.M. Rilke, Gunnar Ekelöf, and Wallace Stevens. May be concurrently scheduled with course C163. Graduate students may be concurrently scheduled with course C160. S/U or letter grading.

M264. Modern European Novel. (5) Seminar, three hours. Preparation: reading knowledge of one appropriate foreign language. Study of modern European novel’s development from 19th to 21st century. Use of authors such as Conrad, Maupassant, Proust, Mann, Joyce, Kafka, Woolf, Nabokov, Grass, Christa Wolf, and Enquist to focus on development of themes such as alienation and authority, gender conflicts, the nature of the ethical enterprise and self-consciousness in narrative. May be concurrently scheduled with course C164. Graduate students required to prepare papers based on texts read in original languages and to meet as group one additional hour each week. S/U or letter grading.

M276. Modern European Novel. (5) Seminar, three hours. Preparation: reading knowledge of one appropriate foreign language. Study of modern European novel’s development from 19th to 21st century. Use of authors such as Conrad, Maupassant, Proust, Mann, Joyce, Kafka, Woolf, Nabokov, Grass, Christa Wolf, and Enquist to focus on development of themes such as alienation and authority, gender conflicts, the nature of the ethical enterprise and self-consciousness in narrative. May be concurrently scheduled with course C164. Graduate students required to prepare papers based on texts read in original languages and to meet as group one additional hour each week. S/U or letter grading.


C274. Postmodern Novel. (4) Seminar, three hours. Preparation: reading knowledge of one appropriate foreign language. Study of modern European novels to theories of structuralism and poststructuralism in which Arab literatures, authors, and intellectuals have engaged with some persistent and recurrent questions related to their mission, vocation, and commitment (fitzarn) to fundamental concerns of Arab world, to responsible mimetic urgency, and to general uses/potencies of rhetoric and poetics within contexts of profound asymmetries of power, temporalities, and actualities. S/U or letter grading.

M274. Theorizing Third World. (4) (Same as American Studies M261.) Seminar, three hours. Investigations of politics of power, gender, and race in complex relationships between the so-called First World and Third World, using both theoretical and textual approaches. S/U or letter grading.

275. Nationalism and Immigration Today. (4) Seminar, three hours. Preparation: reading knowledge of one appropriate foreign language. Study of literary and social discourses on issues of nationalism, immigration, and politics of identity in our postcolonial era, with consideration of broad range of texts (aesthetic representations, theoretical reflections, and legal documents). S/U or letter grading.

M276. Reading Modern Bodies. (4) (Same as Japanese M276.) Seminar, three hours. Designed for graduate students. Examination of construction of human body through various modern technologies and discourses, including those of disease, diet, race, gender, and sexuality. Examination of texts from variety of locations with particular emphasis on Japan. S/U or letter grading.

C277. Caribbean Literature from Negritude to Diaspora. (4) Seminar, three hours. Historical approach to modern Anglophone and Francophone Caribbean literature, re-tracing development through cultural identity beginning with negritude movement’s claim to Africa as expressed in Aimé Césaire’s classic poem Cahier d’un retour au pays natal and ending with consideration of
dispersion of identities in work of writers and intellec-
tuals who contend with problem of diasporic Carib-
bean culture. S/U or letter grading.

C278. India Ink: Literature and Culture of Modern South Asia. (5) Seminar, three hours. Survey of sig-
nificant issues in history of 20th-century Indian literature and culture. Global works of modern Indian culture by such figures as Rabindranath Tagore, Satyajit Ray, Faiz Ahmed Faiz, and U.R. Anantha Murthy, including novels, short stories, poetry, films, music, and works in cultural studies, and scholarly publication. Central and defining issue for 20th-century Indian culture is experience of British colonial and massive and material comparison. Explanation of manner in which literature and culture have de-
veloped in interaction with powerful social forces, such as struggle for national independence from Britain under leaders like Mahatma Gandhi and ex-

279. Subaltern Studies: Colonial Histories and Cul-
tural Critique. (5) Seminar, three hours. Examination of certain links between practice of cultural criticism and problems in historiography of colonial and post-
colonial societies. Use of key texts by members of Subaltern Studies collective of Indian historians to ex-
plore some central issues arising from this relation-
ship. What kind of interdisciplinary space is produced by dialog of history and literary and cultural theory? Attention to literary texts to practice such interdisci-
plinary critique. Nature of modernity in colonial sett-
ing. What is nature of bourgeoisie in colonial society? What kind of modernization does it seek? What is rela-
tionship of modern metropolitan bourgeoisie to indige-
nous one? S/U or letter grading.

280. Latin American Literature in Comparative Contexts. (4) Seminar, three hours. Preparation: reading knowledge of one foreign language. In-depth study of one topic of Latin American literature in com-
parative context. May be repeated for credit. S/U or letter grading.

284. Theories of Translation. (4) Seminar. three hours. Examination of various approaches to concept of translation and to its significance for literary studies. Readings include authors such as Matthew Arnold, Walter Benjamin, George Steiner, and Susan Bassnett. S/U or letter grading.

285. Translation Workshop. (4) Seminar. three hours. Preparation: solid reading knowledge of at least one foreign language. Open to qualified undergraduates with proper language preparation. Introduction to prin-
ciples of literary translation heuristically, that is, on basis of texts of students translate, and presenta-
tion of student work for discussion. Opportunity for students to determine whether they have de-
sire and talent to pursue literary translation as part of their professional education. S/U or letter grading.

286. Workshop: Social Sciences Translation. (4) Seminar, three hours; tutorial, one hour. Preparation: solid reading knowledge of at least one foreign lan-
guage. Designed for graduate social sciences stu-
dents. Techniques students need to render scholarly texts in their fields from language they use in their re-
search into English and to advance their knowledge of language to stage where they can use it more effec-
tively in all aspects of research, as well as to take advantage of translation techniques they have learned. S/U or letter grading.

C287. Reading across Culture. (5) Seminar, three hours. What is it that we do when we try to understand words, habits, gestures, and beliefs not our own? Do we understand something foreign to us by immersing ourselves in it or by standing apart? Does ability to un-
derstand simply take on universal standpoint? Can we make judgments about beliefs other than our own? Questions of cultural interpreta-
tion have long history in both Western and non-
Western culture. Discussion of history of quest for un-
certainty about cross-cultural interpretation and comparative interpretation of cultures in both comparative literature and cultural anthropology. Reading of some very com-
plex and influential works such as those by Claude Lévi-Strauss, Amitav Ghosh, James Clifford, Edward Said, Gayatri Spivak, and Erich Auertbach. Concur-
rently scheduled with course C187. S/U or letter grading.

M288. Modern Arab Thought. (4) (Same as Arabic M288.) Seminar. three hours. While much has been written and said about resurgence and spread of polit-
ical Islam after collapse of ideology of secular national-
ism and failure of Arab left to apprehend exigencies of postrevolutionary/postcolonial moment, little has been devoted to less sensational topic of modern Arab thought. Despite unmistakable predation of critical output produced by Arab thinkers and artists in aftermath of 1967. Course addresses and redresses this glaring imbalance concerning new cultural ma-
terial—literary, critical, philosophical, artistic, and jour-
nalistic—produced before and after al-Nahda but mostly before and after 1967 and fosters insightful ap-
proaches to unlikely coexistence in Arab contemporar-
iness of ever-deepening and generalized crisis and of steady and consolidated development (if not efferves-
cence) of cultural and artistic production. S/U or letter grading.

289. Theory of Film and Literature. (5) Seminar, three hours; film screening, two hours. Study of redefini-
tion and aims of theories of film and literature. Ap-
proaches vary by instructor (e.g., postcoloniality, psy-
choanalysis, Marxist approaches). S/U or letter grading.

290. Contemporary Theories of Criticism. (4) Sem-
inar, three hours. Requisite: course 200A. Advanced course in theory of literature focusing on structuralist, psychoanalytic, and Marxist approaches. S/U or letter grading.


292. Theories of Empire. (4) Seminar, three hours. History and theorizations of modern imperialism and ot-
ternationalism since relevant writings of Karl Marx and Frie-
drich Engels. Examination of number of landmark the-
ories of empire and consideration of whether or not they may be said to constitute coherent tradition or line of theoretical development. Question of resistance to imperial rule and role it plays in these theoretical ac-
counts. S/U or letter grading.

M294. Seminar: Literary Theory. (5) Same as En-
glish M294. Seminar, three hours. Advanced interdisci-
plinary seminar to explore philosophical, historical, and critical foundations of literary theory as well as current issues in literary and cultural studies. S/U or letter grading.

299. Aesthetics and Literature. (4) Seminar, three hours. Preparation: reading knowledge of one appro-
iate foreign language. Study of literary theory through exploration of approaches to literature by phi-
losophers grounded on analytic tradition. Careful at-
tention to concepts of truth, meaning, expression, rep-
resentation, metaphor, fiction, and literature. Letter grading.

375. Teaching Apprentice Practicum. (1 to 4) Seminar, to be arranged. Preparation: apprentice person-
nel employment as teaching assistant, associate, or fellow. Teaching apprenticeship under active guid-
ance and supervision of regular faculty member re-
ponsible for curriculum and instruction at UCLA. May be repeated for credit. S/U grading.

495. Preparation for Teaching Literature and Com-
position. (4) Seminar, three hours. Seminar on prob-
lem and methods of preparing literary and compo-
nsional materials in teaching of composition. Deals with theory and classroom practice and involves indi-
vidual counseling and faculty evaluation of teaching assistants’ performance. May not be applied toward MA course requirements. S/U grading.

501. Cooperative Program. (2 to 8) Tutorial, to be ar-
ranged. Preparation: consent of UCLA graduate ad-
viser and graduate dean and host campus instructor, departure from home, and host campus facilities. Used to record enrollment of UCLA students in courses taken under cooperative arrangements with USC. S/U grading.

586. Directed Individual Study or Research. (2 to 12) Tutorial, to be arranged. Limited to graduate com-
parative literature students. Necessary for students in comparative literature who need additional individual study and research. May be repeated for credit. S/U or letter grading.

96X. Directed Individual Study. (2 to 4) Tutorial, to be arranged. Preparation for foreign language exam-
ination. S/U grading.

97. Preparation for MA and PhD Examinations. (2 to 12) Tutorial, to be arranged. Limited to graduate students. Preparation for MA comprehensive exam-
ination or PhD qualifying examinations. May be re-
peated for credit. S/U grading.

99. Research for PhD Dissertation. (2 to 12) Tuto-
rial, to be arranged. Limited to PhD students. Re-
search for and preparation of PhD dissertation. May be repeated for credit. S/U grading.

COMPUTATIONAL AND SYSTEMS BIOLOGY
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Scope and Objectives
The major in Computational and Systems Biology is designed primarily for highly motivated undergrad-
uate students interested in interdisciplinary studies in life sciences, behavioral sciences, and engineer-
ing and computer sciences. Preparation for the ma-
jor consists of a broad foundation in basic sciences—
chemistry, biology, physics, and mathematics, plus an introduction to computing. The major itself pro-
vides students with foundations in mathematical modeling, information processing, and control and system analysis, with an emphasis on quantitative ideas and methodologies. Mathematical and other anal-
tical skills are essential in the major.

Computational and Systems Biology majors have several options for in-depth studies: a coherent in-

Undergraduate Study

The Computational and Systems Biology major is a designated capstone major. The capstone experience is a senior-level sequence of two courses integrating the discipline via mathematical modeling, simulation, and active research and report writing. Students are expected to demonstrate critical thinking skills and familiarity with research techniques needed to successfully pursue a research project in computational and systems biology, conceive and execute a research project on which they engage current methods and theory, communicate original scholarly findings to peers both in oral and written form, and work productively with others as part of a research team. The experience culminates with completion of the senior thesis requirement.

Computational and Systems Biology majors select a coherent integration of courses from one of five designated concentrations: bioinformatics, biological data sciences, biomedical systems, neurosystems, or systems biology. The synergy for all concentrations is integrative systems, information, and computational systems modeling sciences in biology. The focus is primarily quantitative, as mastery of advanced quantitative skills is essential for multidisciplinary understanding. Each concentration emphasizes different systems or modalities, and modeling or other computational approaches. For students interested in broad options for postgraduate studies in life sciences and related areas, including medicine, the systems biology concentration covers the widest spectrum of quantitative systems studies at all levels. The other concentrations are more focused. For example, bioinformatics is more focused on computational aspects of genetics and biology at molecular and cellular levels. Students normally select one, but because the concentrations have substantial methodologic overlap, well-justified combinations are also possible.

Bioinformatics concentration is designed for students interested in computational discovery and management of biological data, primarily genomic, proteomic, or metabolomic data. Bioinformatics emphasizes computational, statistical, and other mathematical approaches for mining, modeling, and analyzing high-throughput biological data and the inherent structure of biological information. Example research problems include finding statistical patterns that reveal genomic or evolutionary or developmental information, studying how regulatory sequences give rise to programs of gene expression, or researching how the genome encodes the capabilities of the human mind.

The biological data sciences concentration addresses a diverse set of biological questions—ranging from medicine, to genomics, physiology, pharmacology, neuroscience, ecology, and evolution—using recent tools and advances in mathematics and computation—specifically machine learning, statistical data sciences, and informatics. Biological data sciences leverages new and developing courses in computational and systems biology and across UCLA, and greatly aids students who aim to go directly into industry—biotech, pharmaceuticals, and more—as well as computational biology graduate school. The concentration has a strong focus and deep integration with life sciences.

The biomedical systems concentration is designed for students interested primarily in medical system studies; the systems aspects of biomedical, surgical, or other biomedical engineering system devices including MEMS or nanoscale system devices; and use of dynamic biosystem modeling for optimizing or developing new clinical diagnostic or therapeutic protocols. Example research problems include feedback biocontrol system model development for imaging-based medical diagnosis and optimal control of therapeutic drug delivery.

The systems neurosciences concentration is designed for students interested primarily in the nervous system, or quantitative neurophysiology, with emphasis on neural system networks that control behavior: molecular, cellular, and whole-organism levels; neural information and control systems; and systems electrophysiology and neural electronic systems for controlling prostheses. Example research problems include analysis of (real) neural networks in normal and abnormal brain function, design of prosthetic systems for hearing (cochlear implant) and walking (spinal cord stimulation) recovery, and MEMS-based brain-machine interface devices.

The systems biology concentration is designed for students who want to understand biological systems holistically and quantitatively, and pursue research with an emphasis on systems and integrative principles in biology or medicine. The curriculum imparts an understanding of systems biology (often called the new physiology) using dynamical systems modeling, control, computer simulation, and other computational methods—integrated with the biology. For example, at the cellular level, systems biologists integrate proteomic, transcriptomic, and metabolomic information into a more complete systems picture of living organisms. However, the methodologies include single-scale or multiscale modeling for enhancing understanding of regulatory biomechanisms at all levels—molecular, cellular, organ, and/or whole-organism levels—and are prevalent in population and ecosystem studies, as well as systems-level problems in medicine and pharmacology.

Computational and Systems Biology BS Capstone Major Learning Outcomes

The Computational and Systems Biology major has the following learning outcomes:

- Oral and written communication of original scholarly findings to peers
- Productive participation with others as part of a research team

Premajor

Students entering UCLA directly from high school or first-term transfer students who declare the Computational and Systems Biology premajor at the time of application are automatically admitted.

Current students who were admitted as freshmen or transfer students (transfer students must have been admitted under the division of life sciences) may request to declare the premajor once they have met the following criteria: (1) completed one quarter at UCLA, (2) are in good academic standing, (3) have a minimum cumulative grade-point average (GPA) of 2.0, and (4) have established a premajor GPA of a minimum of 2.7 by taking at least one premajor course at UCLA for a letter grade.

Requests to declare the premajor should be sent by e-mail to the program. For more information, see the program website.

All courses taken for the premajor must be completed with a grade of C or better. Premajor courses Program in Computing 10B and 10C, or Computer Sciences 32 are required for students following the Biological Data Sciences or Bioinformatics concentrations, but do not have to be completed prior to applying to the major.

All students are identified as premajors until they satisfy the preparation for the major requirements by achieving (1) a minimum 2.7 GPA in all premajor courses, and (2) a minimum grade of C in all premajor courses.

Preparation for the Major

Required: A minimum of 66 to 82 units (depending on the calculus series, computer programming courses, and additional requisites for specific concentrations), including Chemistry and Biochemistry 14A, 14B, and 14BL, or 20A, 20B, and 20L; Computer Science 31 or Program in Computing 10A, Life Sciences 30A, 30B, 40, and Computational and Systems Biology M32 or Mathematics M32T, or Mathematics 31A or 31AL, 31B, and Statistics 10; Mathematics 33A, 33B; Physics 1A, 1B, and 1C, or 1AH, 1BH, and 1CH, or Physics 5A, 5B, and 5C.

Students must also complete one of two life sciences sequences—either Life Sciences 1, 2, 3, and 4, or 7A, 7B, and 7C. They may not substitute courses in either sequence.

Students following the bioinformatics concentration must also complete Computer Science 32 or Program in Computing 10B and 10C.

Students following the biological data sciences concentration must also complete Computer Science 32.

Students following the bioinformatics, biomedical systems, or systems biology concentrations must also complete Computational and Systems Biology M32 (same as Life Sciences M32 and Mathematics M32T) or Mathematics 32A.

Additional lower-division courses may be requisite to desired concentration courses.
Students are allowed to repeat up to two premajor courses. Those who do not pass a course a second time are dismissed from the program.

Transfer Students

Transfer applicants to the Computational and Systems Biology major with 90 or more units must complete as many of the following introductory courses as possible prior to admission to UCLA: one year of general chemistry with laboratory for majors, two years of calculus for majors, one year of calculus-based physics, one year of biology with laboratory for majors, and one programming course using C++, Python, or similar language.

Transfer applicants must meet the same academic requirements as current UCLA students, based on all courses transferred from another institution that satisfy premajor requirements, and must have completed one 12-unit term of residence in regular session at UCLA.

Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

The Major

The major consists of a methodology core of seven courses (27 units) and a concentration of five upper-division courses (20 units minimum). Each course in the major must be passed with a grade of C or better.

Methodology Core

Required: (1) Computational and Systems Biology M150, M184, 185, (2) one probability course from: Electrical and Computer Engineering 131A, Mathematics 170A, 170E, or Statistics 100A, (3) one statistics course from: Biostatistics 100A or Statistics 100B, and (4) two capstone courses: Computational and Systems Biology M187 and 199 or 198A and 198B.

Concentrations

Required: A minimum of five courses (20 units minimum) from the concentrations listed below. No 199 course may be applied toward any concentration. An approved list of elective courses for each concentration is available in the program office and on the department website.

Bioinformatics (at least 20 units): Computer Science CM121, CM124, Molecular, Cell, and Developmental Biology 165A (or 144), Physiological Science 125 (or Molecular, Cell, and Developmental Biology 187AL), and one additional course from the bioinformatics approved course list. Note: Computer Science 32 or Program in Computing 10B and 10C, and Computational and Systems Biology M32 (same as Life Sciences M32 or Mathematics M32T) or Mathematics 32A are completed in the premajor.

Biological Data Sciences (at least 20 units): Computer Science CM121, M146 (or Statistics 101C or C161), 180, and two additional courses from the biological data sciences approved list. Note: Computer Science 32 is completed in the premajor.

Biomedical Systems (at least 20 units): Bioengineering C102, Computational and Systems Biology M186, Electrical and Computer Engineering 133A (or Mathematics 151A), and one additional course from the biomedical systems approved course list. Note: Computational and Systems Biology M32 (same as Life Sciences M32 or Mathematics M32T) or Mathematics 32A is completed in the premajor.

Neurosystems (20 units): Computational and Systems Biology M186, Neuroscience M101A, M101B, 102 (or Electrical and Computer Engineering 113 or Mathematics 155), and one additional course from the neurosystems approved list.

Systems Biology (at least 20 units): Computational and Systems Biology M186, Ecology and Evolutionary Biology 170 (or Physiological Science 166), Molecular, Cell, and Developmental Biology 100 (or 144 or 165A), Physiological Science 125 (or Molecular, Cell, and Developmental Biology 187AL), and one additional course from the systems biology approved list. Note: Computational and Systems Biology M32 (same as Life Sciences M32 or Mathematics M32T) or Mathematics 32A is completed in the premajor.

Honors Program

Students with a grade-point average of 3.5 or better in required major courses and a 3.0 cumulative GPA may apply for admission to the honors program. Honors or highest honors may be granted at the discretion of the faculty sponsor and the faculty committee to students demonstrating exceptional ability on the senior research thesis.

Mathematical Biology Minor

The Mathematical Biology minor introduces undergraduate students to an active interdisciplinary research field at UCLA. The minor core examines biological systems in a holistic and quantitative manner by emphasizing systems and integrative principles in biology. Students who complete the minor have sufficient training to apply the knowledge they learn in graduate school or employment of their choice. Students complete a core curriculum and an elective course. The minor consists of lower-division courses basic to the minor, five core courses, and one elective course that provide the needed background in mathematical biology, molecular and cell biology, statistics and probability, and mathematical modeling and simulation methods for biological systems.

To enter the minor, students must be in good academic standing (2.0 grade-point average or better) and have completed Computer Science 31 or Program in Computing 10A with a grade of C or better. Requirements must be in addition to units applied toward major requirements or another minor.

Each minor course may be taken for a letter grade, and students must have an overall grade-point average of 2.0 or better in the minor. Successful completion of the minor is indicated on the transcript and diploma.

Structural Biology Minor

The Structural Biology minor introduces undergraduate students to an active interdisciplinary research field at UCLA. It examines biological systems in a holistic and quantitative manner by emphasizing systems and integrative principles in biology. It consists of lower-division courses basic to the minor, four core courses, and one elective course that provide the needed background in structural biology, biological microscopy, and biochemistry. Students who complete the minor have sufficient training to apply the knowledge they learn in graduate school or employment of their choice.

To enter the minor, students must be in good academic standing (2.0 grade-point average or better) and have completed Computer Science 31 or Program in Computing 10A with a grade of C or better. Requests to declare the minor must be sent by e-mail to the program. The e-mail should include full name, UID number, request to declare the minor, and a statement indicating whether the student consents to being added to the departmental under-graduate news listerv.

Required Lower-Division Course (4 units): Mathematics 33A.

Required Upper-Division Courses (22 units): Chemistry and Biochemistry 133A, M230B, Computational and Systems Biology M184, Microbiology, Immunology, and Molecular Genetics 105, and two elective courses selected from Biostatistics 100A, Chemistry and Biochemistry M117, 156, Electrical and Computer Engineering 102, 113, Statistics 100A, 100B.

A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor.

Each minor course must be taken for a letter grade, and students must have an overall grade-point average of 2.0 or better in the minor. Successful completion of the minor is indicated on the transcript and diploma.

Systems Biology Minor

The Systems Biology minor introduces undergraduate students to an active, interdisciplinary, quantitative biosciences research and teaching field at UCLA. It offers a coherent course plan encompassing basic foundations of the field. Beside broadening student knowledge in systems biology, the minor provides students with enhanced perspective about computational and systems biology methods and applications and better prepares students to make more informed choices about their future directions and careers. The minor consists of lower-division courses basic to the minor, a survey seminar...
course, four core courses, and one elective course that provide the needed background in molecular and cell biology, computational and systems engineering, and mathematical modeling and simulation methods for biological systems.

To enter the minor, students must be in good academic standing (2.0 grade-point average or better) and have completed Computer Science 31 or Program in Computing 10A with a grade of C or better. Requests to declare the minor must be sent by e-mail to the program. The e-mail should include full name, UID number, request to declare the minor, and a statement indicating whether the student consents to being added to the departmental undergraduate news listerv.

Required Lower-Division Courses (8 units): Mathematics 33A, 33B.

Required Upper-Division Courses (20 units): Computational and Systems Biology M184, M186, Electrical and Computer Engineering 102, 141 (or Mechanical and Aerospace Engineering 171A), Molecular, Cell, and Developmental Biology M140 or 144, and one elective course selected from Mathematics 134, 151A, 151B, 170A, 170B, 171, Molecular, Cell, and Developmental Biology 172, or Physiological Science 125.

A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor.

Each minor course must be taken for a letter grade, and students must have an overall grade-point average of 2.0 or better in the minor. Successful completion of the minor is indicated on the transcript and diploma.

Computational and Systems Biology Lower-Division Courses

19. Fiat Lux Freshman Seminars. (1 Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.


89. Honors Seminars. (1 Seminar, three hours. Limited to 20 students. Designed as adjunct to lower-division lecture course. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

89HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to lower-division lecture course. P/NP or letter grading.


198C-198D. Honors Research in Computational and Systems Biology. (4) (formerly numbered 198C, 198D.) Lecture, 12 hours. Limited to juniors/seniors. Supervised individual research under guidance of faculty mentor. Culminating report/thesis required. May be repeated for credit. Eight units may be applied toward major requirements. Individual contract required. Letter grading.

M150. Biological Modeling: Mathematical and Computational Approaches. (Formerly numbered 150.) (Same as Ecology and Evolutionary Biology M159.) Lecture, four hours; laboratory, three hours. Requisites: Life Sciences 7A, 7B, 7C, Mathematics 33A, 33B, (formerly 150.) (Formally numbered 150.) Lecture, supervised research or other scholarly work, three hours per week per term. Entry-level research for lower-division students under guidance of faculty mentor. Students must be in good academic standing and enrolled in minimum of 12 units (excluding this course). Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP grading.

Upper-Division Courses

M150. Biological Modeling: Mathematical and Computational Approaches. (Formerly numbered 150.) (Same as Ecology and Evolutionary Biology M159.) Lecture, four hours; laboratory, three hours. Requisites: Life Sciences 7A, 7B, 7C, Mathematics 33A, 33B, (formerly 150.) (Formally numbered 150.) Lecture, supervised research or other scholarly work, three hours per week per term. Entry-level research for lower-division students under guidance of faculty mentor. Students must be in good academic standing and enrolled in minimum of 12 units (excluding this course). Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP grading.

M160. Computational Systems Biology: Modeling and Simulation of Biological Systems. (Formerly numbered 160.) (Same as Bioengineering CM186, Computer Science CM186, and Ecology and Evolutionary Biology M178.) Lecture, four hours; laboratory, three hours; outside study, eight hours. Dynamic biosystems modeling and computer simulation methods for studying biological/biomedical processes and systems at multiple levels of organization. Control system, multicompartamental, predator-prey, pharmacokinetic (PK), pharmacodynamic (PD), and other structural modeling methods applied to life sciences problems at molecular, cellular (biochemical pathways/networks), organ, and organism scales. Both theory and data-driven modeling, with a focus on translating biomodeling goals and data into mathematics models and implementing them for simulation and analysis. Basics of numerical simulation algorithms, with modeling software exercises in class and PC laboratory assignments. Letter grading.

M187. Research Communication in Computational and Systems Biology. (4) (Same as Bioengineering CM187 and Computer Science CM187.) Lecture, four hours; outside study, eight hours. Requisites: course M150 or M186 or Computer Science M182. Closely directed, interactive, and real research experience in active quantitative biology research laboratory. Direction on how to focus on topics of current interest in scientific community, appropriate to student interests and capabilities. Critical evaluation of presentations and written progress reports explain how to proceed with search for research results. Major emphasis on effective research reporting, both oral and written. Letter grading.

189. Advanced Honors Seminars. (1 Seminar, three hours. Limited to 20 students. Designed as adjunct to upper-division lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

189HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed for students with credit for Mathematics 31A, 31B, 32A, or 32B. Not open to students with credit for Mathematics 31A, 31B, 32A, or 32B. Designed for life sciences students. Methods and results of single and multivariable calculus essential for quantitative training in biology. Limits, differentiation, integration and methods of integration, Taylor polynomials and applications to approximation, Taylor and other power series, vector valued functions, gradients, and Lagrange multipliers. P/NP or letter grading.

189A-189B. Honors Research in Computational and Systems Biology. (4) (formerly numbered 198A, 198B.) Lecture, 12 hours. Maximum of 8 units of courses 189A and 189B may be applied toward major. Individual contract required. 189A. Requisite: course M150. Limited to Computational and Systems Biology students. Supervised individual research involving extensive reading and development of honors thesis or comprehensive project under guidance of faculty mentor. In Progress grading (credit to be given on completion of course 189B). 189B. Requisite: course 189A. Continued reading and research culminating in honors thesis under direct supervision of faculty member. Letter grading.

199. Directed Research in Computational and Systems Biology. (4) (formerly numbered 199.) 12 hours. Limited to seniors. Supervised individual research under guidance of faculty mentor. Culminating report/thesis required. May be repeated for credit. Four units may be applied toward major requirements. Individual contract required. Letter grading.
The department builds from abstract modeling toward research vital to the advancement of current biomedical frontiers. The doctoral program reflects this in requirements for advanced training in a biomedical research specialty and in the mathematical and computing skills required to contend realistically with the complex phenomena encountered in biology and medicine. The art of quantitative research is developed individually from the first year. The master’s program adapts to the needs of researchers desiring supplemental quantitative science training.

The department welcomes both undergraduate and graduate students in other majors to its courses in mathematical modeling, research computing, and biomedical statistics. Pre-medical majors with mathematical and computational interests can receive early guidance toward an MD/PhD joint degree. The department also offers quantitative science training in the medical curriculum and postgraduate medical programs.

Graduate Study

Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Division website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Graduate Degrees

The Department of Computational Medicine offers Master of Science (MS) and Doctor of Philosophy (PhD) degrees in Biomathematics and the Master of Science (MS) degree in Clinical Research.

Biomathematics

Lower-Division Courses

19. First Year Freshman Seminars, (1 Seminar) one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

98. Student Research Program, (1 to 2) Tutorial (supervised research or other scholarly work), three hours per week per unit. Entry-level research for lower-division students under guidance of faculty mentor. Students must be in good academic standing and enrolled in minimum of 12 units (excluding this course). Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP grading.

Upper-Division Courses

170A. Introductory Biomathematics for Medical Investigations, (4) Lecture, three hours; discussion, one hour. Intensive elementary statistics course emphasizing design and applications to observational studies and experiments/clinical trials. Statistical topics include study design, descriptive statistics, elementary probability and distributions, confidence intervals and hypothesis testing, sample size and power, linear regression and correlation, analysis of variance, nonparametric statistics. Applications to biomedical literature and design of clinical trials. Letter grading.

189HC. Honors Contracts, (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to upper-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental reading, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors consent noted on transcript. Letter grading.

190HA-190HB. Honors Research in Biomathematics, (4-8) Tutorial, to be arranged. Limited to juniors/seniors. Individual research in some aspect of biomathematics designed to acquaint students in depth with mathematical models and computer applications in biology. Must be taken for at least two terms and for total of at least 8 units. Thesis required. P/NP or letter grading.

197. Individual Studies in Biomathematics, (2 to 4) Tutorial, four hours. Limited to juniors/seniors. Individual intensive study, with scheduled meetings to be arranged between faculty member and student. Assigned reading and tangible evidence of mastery of subject matter required. May be repeated for credit. Individual contract required. P/NP or letter grading.

199. Directed Research or Senior Project in Biomathematics, (2 to 8) Tutorial, two hours. Limited to juniors/seniors. Supervised individual research or investigation under guidance of faculty mentor. Culminating paper required. May be repeated for credit. Individual contract required. P/NP or letter grading.

Graduate Courses


2008. Frontiers and Methods in Mathematical Systems, (4) Lecture/seminar, four hours. Introduction to cutting-edge research in mathematical biology; imparts critical thinking through critique of research. Trains students in scientific writing and presentation skills. Short writing assignments, figure preparation, and slide development. Letter grading.

201. Deterministic Models in Biology, (4) Lecture, three hours; laboratory, three hours. Preparation: knowledge of linear algebra and differential equations. Examination of conditions under which deterministic approaches can be employed and conditions where they may be expected to fail. Topics include compartmental analysis, enzyme kinetics, physiological control systems, and cellular/animal population models. S/U or letter grading.


M203. Stochastic Models in Biology, (4) (Same as Human Genetics M203.) Lecture, four hours. Preparation: knowledge of stochastic models and probability. Mathematical description of biological re-lationships, with particular attention to areas where conditions for deterministic models are inadequate. Examples of stochastic models from genetics, physiology, ecology, and variety of other biological and medical disciplines. S/U or letter grading.

204. Biomedical Data Analysis, (4) Lecture, four hours. Preparation: at least one elementary course in probability or statistics that included basic probability, elementary distributions, hypothesis testing, and confidence intervals; knowledge of elementary calculus. Familiarity with elementary matrix algebra and previous programming experience are strongly preferred. Quantity and quality of observations have been greatly affected by present-day extensive use of computers. Problem-oriented study of latest methods in statistical data analysis and use of such arising in laboratory and clinical research. S/U or letter grading.

205. Top Computational Algorithms, (4) Lecture, four hours. Recommended preparation: undergraduate calculus, linear algebra, probability. Overview of most important and beautiful algorithms in numerical analysis, statistics, bioinformatics, and computer science.
ence. Emphasis on mathematical derivation, practical computational analysis, significant applications, and coding in Julia programming language. Big data applications particularly stressed. Letter grading.


M232. Statistical Analysis of Incomplete Data. (4) (Same as Biostatistics M232.) Lecture, three hours; discussion, one hour. Requisites: Biostatistics 200C, 206. Introduction to statistical science. Sources of incomplete data, recognizing familiar methods as solutions to missing-data problems, missing-data mechanisms, weighting and imputation strategies, model-based and design-based inference. Theory and algorithms for dealing with constraints, robust estimation, and design-based model parameter estimation algorithms for fitting dynamic system models to biomedical data. Model discrimination methods. Theory and algorithms for designing optimal experiments for developing and quantifying models, with specific sampling schedule design for kinetic models. Exploration of PC software for model building and optimal experiment design via applications in physiology and pharmacology. Letter grading.

M260A-M260B. Methodology in Clinical Research I, II. (4–4) (Same as Medicine M260A-M260B.) Lecture, four hours. Recommended preparation: MD, PhD, or dental degree. Requisites: courses 170A, 170B, 250. Preparation: completion of basic course in protection of human research subjects. Selection of analysis techniques, and presentation of findings so students are better prepared to complete data analysis, interpretation of results, and written presentation of their findings (e.g., for master’s thesis and subsequent articles). Students encouraged to provide their own data. Databases provided for use in completing exercises for those without available data. Letter grading.

284. Applied Data Collection and Analysis. (4) Lecture, four hours. Presentation of research project development, including protocol development, data collection, quality control, clinical/electronic health record (EHR) data, structuring data for analysis, and data archiving. Lectures, in-class discussion, actual studies and datasets, and student presentations. Letter grading.

254. Data Analysis Strategies I, II. (4) Lecture, two hours; laboratory, two hours. Preparation: MD or PhD designation, course director. Development of critical ability to evaluate trial design and pitfalls. S/U or letter grading.

253. Statistical Analysis of Incomplete Data. (4) (Same as Biostatistics M232.) Lecture, three hours; discussion, one hour. Requisites: Biostatistics 200C, 206. Introduction to statistical science. Sources of incomplete data, recognizing familiar methods as solutions to missing-data problems, missing-data mechanisms, weighting and imputation strategies, model-based and design-based inference. Theory and algorithms for dealing with constraints, robust estimation, and design-based model parameter estimation algorithms for fitting dynamic system models to biomedical data. Model discrimination methods. Theory and algorithms for designing optimal experiments for developing and quantifying models, with specific sampling schedule design for kinetic models. Exploration of PC software for model building and optimal experiment design via applications in physiology and pharmacology. Letter grading.

M207A. Theoretical Genetic Modeling. (4) (Same as Biostatistics M272 and Human Genetics M207A.) Lecture, three hours; discussion, one hour. Requisites: Mathematics 115A, 131A, Statistics 100B. Mathematical models in statistical genetics. Topics include population genetics, genetic epidemiology, gene mapping, design of genetics experiments, DNA sequence analysis, and molecular phylogeny. S/U or letter grading.

M207B. Applied Genetic Modeling. (4) (Same as Biostatistics M273 and Human Genetics M207B.) Lecture, three hours; laboratory, one hour. Requisites: Biostatistics 200B, 202B (may be taken concurrently) or equivalent coursework or consent of instructor. Covers the analysis of genetic data: laboratory reports required. Course complements M207A; students may take either and are encouraged to take both. S/U or letter grading.

M208. Mechanisms and Modeling in Bioanalytical Assays. (4) Lecture, three hours. Preparation: knowledge of basic physical chemistry and ordinary differential equations. Recommended requisite: course 201. Review of basic physical mechanisms and mathematical methods of common bioanalytical techniques. Topics include chromatography, electrohoresis, blotting, DNA sequencing, PCR, SELEX, ChIP-sequencing, FACS, FRAP, and FISH. S/U or letter grading.


M211. Mathematical and Statistical Phylogenetics. (4) (Same as Biostatistics M239 and Human Genetics M211.) Lecture, three hours; laboratory, one hour. Theoretical models in molecular evolution, with focus on phylogenetic techniques. Topics include evolutionary tree reconstruction methods, studies of viral evolution, phyleography, and coalescent approaches. Examples from evolutionary biology and medicine. Laboratory for hands-on computer analysis of sequence data. S/U or letter grading.

213. Modeling Vascular Networks. (4) Lecture, four hours. Preparation: undergraduate mathematical analysis and linear algebra, differential equations, complex analysis, elementary knowledge of partial differential equations. Introduction to equations that describe fluid dynamics and branching, and how network models to provide survey of models for structure and flow of vascular systems. Vascular systems are nearly ubiquitous in nature, occurring across animals, plants, and other organisms. Coverage includes tumor growth and angiogenesis, sleep, allometric scaling, and other phenomena. S/U or letter grading.

M230. Computed Tomography: Theory and Applications. (4) (Same as Physics and Biology in Medicine M230.) Lecture, four hours. Computed tomography is three-dimensional imaging technique being widely used in radiology and is becoming active research area in biomedicine. Basic principles of computed tomography (CT), various reconstruction algorithms, and special characteristics of CT, physics in CT, and various biomedical applications. S/U or letter grading.

M231. Responsible Conduct of Research Involving Humans. (2) (Same as Medicine M261L.) Lecture, two hours; discussion, two hours. Preparation: completion of one basic course in protection of human research subjects through Collaborative Institutional Training Initiative. Discussion of current issues in responsible conduct of clinical research, including reporting of research, basis for authorship, issues in genetic research. Review of human, conflicts of interest, Institutional Review Board (IRB), and related topics. S/U or letter grading.

M262. Communication of Science. (2) (Same as Psychiatry M230.) Lecture, two hours; discussion, one hour. Presentation of various types of scientific writings and their good practice. Details of writing specific articles: methods, results, discussion. Writing of review article. Grant submissions: aims, background, results, discussion, design, Communication with lay public. S/U or letter grading.

M263. Clinical Pharmacology. (2) (Same as Medicine M263 and Psychiatry M263.) Lecture, two hours. Preparation: completion of professional health sciences degree (e.g., MD, PharmD). Overview of principles of clinical pharmacology, especially as they relate to clinical and translational medicine and to advances in contemporary medicine such as targeting, gene therapy, and genomics. Letter grading.

254. Applied Data Collection and Analysis. (4) Lecture, four hours. Preparation: research project development, including protocol development, data collection, quality control, clinical/electronic health record (EHR) data, structuring data for analysis, and data archiving. Lectures, in-class discussion, actual studies and datasets, and student presentations. Letter grading.

255A. Data Analysis Strategies I, II. (4) Lecture, two hours; laboratory, two hours. Preparation: MD or PhD designation, course director. Development of critical ability to evaluate trial design and pitfalls. S/U or letter grading.

255B. Statistical Analysis of Incomplete Data. (4) (Same as Biostatistics M232.) Lecture, three hours; discussion, one hour. Requisites: Biostatistics 200C, 206. Introduction to statistical science. Sources of incomplete data, recognizing familiar methods as solutions to missing-data problems, missing-data mechanisms, weighting and imputation strategies, model-based and design-based inference. Theory and algorithms for dealing with constraints, robust estimation, and design-based model parameter estimation algorithms for fitting dynamic system models to biomedical data. Model discrimination methods. Theory and algorithms for designing optimal experiments for developing and quantifying models, with specific sampling schedule design for kinetic models. Exploration of PC software for model building and optimal experiment design via applications in physiology and pharmacology. Letter grading.

M270. Optimal Parameter Estimation and Experiment Design for Biomedical Systems. (4) (Same as Bioengineering 226B, Computer Science 226B, and Medicine M270D.) Lecture, four hours; outside study, eight hours. Preparation: course 220 or Biome ngineering CM226 or CM229A. Estimation methodology and model parameter estimation algorithms for fitting dynamic system models to biomedical data. Model discrimination methods. Theory and algorithms for designing optimal experiments for developing and quantifying models, with specific sampling schedule design for kinetic models. Analysis of PC software for model building and optimal experiment design via applications in physiology and pharmacology. Letter grading.

M271. Statistical Methods in Computational Biology. (4) (Same as Bioinformatics M223 and Statistics M223.) Lecture, three hours; discussion, one hour. Preparation: elementary probability concepts. Requirements: Computer Science 223A or equivalent coursework or consent of instructor. Survey of basic statistical concepts and use of statistical inference, design of experiments, multiplicity issues, statistical tests, and selection of analysis techniques, and presentation of findings so students are better prepared to complete data analysis, interpretation of results, and written presentation of their findings (e.g., for master’s thesis and subsequent articles). Students encouraged to provide their own data. Databases provided for use in completing exercises for those without available data. Letter grading.

293A. Biostatistics. (2) (Same as Bioinformatics M223 and Statistics M223.) Lecture, three hours; discussion, one hour. Preparation: elementary probability concepts. Requirements: Computer Science 223A or equivalent coursework or consent of instructor. Survey of basic statistical concepts and use of statistical inference, design of experiments, multiplicity issues, statistical tests, and selection of analysis techniques, and presentation of findings so students are better prepared to complete data analysis, interpretation of results, and written presentation of their findings (e.g., for master’s thesis and subsequent articles). Students encouraged to provide their own data. Databases provided for use in completing exercises for those without available data. Letter grading.
which multivariate normal model may be assumed. Students learn how to think about longitudinal data, plot data, and how to specify mean and variance of longitudinal response. Advanced topics include introductions to clustered, multivariate, and discrete longitudinal data. S/U or letter grading.

M284, Methodology of Clinical Trials. (4) Same as Biostatistics M283B. Lecture, three hours; discussion, one hour. Requisite: Biostatistics 200B. Introductory material on design and analysis of clinical trials, including adaptive methods for early and late randomized trials. S/U or letter grading.

285. Introduction to High-Throughput Data Analysis. (4) Seminar, three hours. Requisites: courses M260A, M260B. Introduction to high-throughput data analysis, including DNA microarray technologies and next-generation sequencing technology. Presentation of statistical methods and software for handling complex data produced by experiments using these technologies. Some hands-on training on data analysis provided. S/U or letter grading.

299. Special Topics in Clinical Research. (2 to 6) Seminar, three hours. Requisites: courses M260A, M260B. Advanced study and analysis of current topics in clinical research. Discussion of current research and literature in research specialty of faculty member teaching course. Content varies from term to term and may include lectures from visiting scientists. May be repeated for credit with consent of instructor. S/U or letter grading.

596. Directed Individual Study or Research in Biostatistics. (2 to 12) Tutorial, to be arranged. Individual study on topics not yet covered by offerings of department. May be repeated for credit with topic change. S/U or letter grading.

597. Preparation for MS or PhD Comprehensive Examination or PhD Qualifying Examinations. (2 to 8) Tutorial, to be arranged. Individual study. S/U grading.

Computer Science and Engineering BS

Capstone Major
The Computer Science and Engineering curriculum at UCLA provides students with the education and training necessary to design, implement, test, and utilize the hardware and software of digital computers and digital systems. The curriculum has components spanning both the Computer Science and Electrical and Computer Engineering departments. The curriculum covers all aspects of computer systems from electronic design through logic design, MSI, LSI, and VLSI concepts; device utilization, machine language design, implementation and programming, operating system concepts, systems programming, networking fundamentals, and higher-level language skills; and their application. Students are prepared for employment in a wide spectrum of high-technology industries.

Learning Outcomes
The Computer Science and Engineering major has the following learning outcomes:

• Application of basic mathematical and scientific concepts that underlie the modern field
• Design of a software or digital hardware system, component, or process to meet desired needs within realistic constraints
• Function productively with others on a team, including those with different specialties within the field
• Identification, formulation, and solution of computer software- and hardware-related engineering problems
• Effective communication

Preparation for the Major
Required: Computer Science 1, 31, 32, 33, 35L, 170A; Electrical and Computer Engineering 3; Mathematics 31A, 31B, 32A, 32B, 33A, 33B, 61; Physics 1A, 1B, 1C, and 4AL or 4BL.

The Major
Required: Computer Science 111, 118, 131, 131A, 170A, 170B, 180, 181; Electrical and Computer Engineering 100, 102, 115C; one course from Civil and Environmental Engineering 110, Electrical and Computer Engineering 131A, Mathematics 170A, 170E, or Statistics 100A; one capstone design course (Computer Science 152B); a minimum of 4 units and one elective course selected from Electrical and Computer Engineering 101A through 118B; a minimum of 12 units and three elective courses selected from Computer Science 111 through CM187; and 12 units of technical breadth courses selected from an approved list available in the Office of Academic and Student Affairs.

Students who want to deepen their knowledge of electrical engineering are encouraged to select that discipline as their technical breadth area. Credit is not allowed for both Computer Science 170A and Electrical and Computer Engineering 133A unless at least one of them is applied as part of the technical breadth area. Electrical and Computer Engineering 110, 131A, and CM182 may not satisfy elective credit. A petition may be submitted to consider four units of Computer Science 194 or 199 for an elective. Credit is not guaranteed and subject to vice chair review.

A multiple-listed (M) course offered in another department may be used instead of the same computer science course (e.g., Electrical and Computer Engineering 115C may be taken instead of Computer Science M115C). Credit is applied automatically. For information on UC, school, and general education requirements, see the College and Schools chapter.

Computer Science BS

Capstone Major
The Computer Science curriculum is designed to accommodate students who want professional preparation in computer science but do not necessarily have a strong interest in computer systems hardware. The curriculum consists of components in computer science, a minor or technical support area, and a core of courses from the social sciences, life sciences, and humanities. Within the curriculum, students study subject matter in software engineering, principles of programming languages, data structures, computer architecture, theory of computation and formal languages, operating systems, distributed systems, computer modeling, computer networks, compiler construction, and artificial intelligence. Majors are prepared for employment in a wide range of industrial and business environments.

Learning Outcomes
The Computer Science major has the following learning outcomes:

• Application of basic mathematical and scientific concepts that underlie the modern field
• Design of a software or digital hardware system, component, or process to meet desired needs within realistic constraints
• Function productively with others on a team, including those with different specialties within the field
• Identification, formulation, and solution of computer software- and hardware-related engineering problems
• Effective communication

Preparation for the Major
Required: Computer Science 1, 31, 32, 33, 35L, 170A; Mathematics 31A, 31B, 32A, 32B, 33A, 33B, 61; Physics 1A, 1B, 1C, and 4AL or 4BL.

The Major
Required: Computer Science 111, 118, 131, 131B, 170A, 180, 181; one course from Civil and Environmental Engineering 110, Electrical and Computer Engineering 131A, Mathematics 170A, 170E, or Statistics 100A; one capstone design course from Computer Science M151B. Credit is applied automatically. For information on UC, school, and general education requirements, see the College and Schools chapter.

Computer Engineering BS

Capstone Major
The undergraduate curriculum provides all computer engineering students with preparation in the mathematical and scientific disciplines that lead to a set of courses that span the fundamentals of the discipline in the major areas of data science and embedded networked systems. These collectively provide an understanding of many inventions of importance to our society, such as the Internet of Things, human-cyber-physical systems, mobile/wearable/implantable systems, robotic systems, and more generally smart systems at all scales in diverse spheres. The design of hardware, software, and algorithmic elements of such systems represents an already dominant and rapidly growing part of the computer engineering profession. Students are encouraged to make use of their computer science and electrical and computer engineering electives and a two-quarter capstone design course to pursue deeper knowledge within one of these areas according to their interests, whether for graduate study or preparation for employment.

Learning Outcomes
The Computer Engineering major has the following learning outcomes:

• Application of mathematical, scientific, and engineering knowledge
• Design of a software or hardware system, component, or process to meet desired needs within realistic economic, environmental, social, ethical, health, safety, security, reliability, manufacturability, and sustainability constraints
• Function productively on a team with others
• Identification, formulation, and solution of computer engineering problems
• Effective communication
Preparation for the Major

Required: Computer Science 1 (or Electrical and Computer Engineering 1), 31, 32, 33, 35L, M51A (or Electrical and Computer Engineering M16L), 180; Electrical and Computer Engineering 100, 102, 113, 115C; one course from Civil and Environmental Engineering 110, Electrical and Computer Engineering 131A, Mathematics 170A, 170E, Statistics 100A; 8 units of computer science and 8 units of electrical and computer engineering upper-division electives; three technical breadth courses (12 units) selected from an approved list available in the Office of Academic and Student Affairs; 8 units capstone design from either Electrical and Computer Engineering 180DA/180DB or 183DA/183DB.

For information on UC, school, and general education requirements, see the College and Schools chapter.

Bioinformatics Minor

The Bioinformatics minor introduces undergraduate students to the emerging interdisciplinary field of bioinformatics, an active area of research at UCLA combining elements of the computational sciences with the biological sciences. The minor organizes the many course offerings in different UCLA departments into a coherent course plan providing students with significant training in bioinformatics in addition to the training they obtain from their major. Students who complete the minor will be strong candidates for admission to PhD programs in bioinformatics as well as have the relevant training to obtain jobs in the biotechnology industry.

Students complete a core curriculum and an elective course and are strongly encouraged to participate in undergraduate research as early as possible in one of the many groups offering research opportunities in bioinformatics.

To enter the minor, students must be (1) in good academic standing (2.0 grade-point average or better), (2) have completed at least two of the lower-division requirements with minimum grades of C, and (3) file a petition in the Academic standing (2.0 grade-point average or better) opportunities in bioinformatics.

Students are strongly encouraged to take Computer Science M184 as early as possible to obtain an overview of computational biology.

If students apply any of Civil and Environmental Engineering 110, Electrical and Computer Engineering 131A, Mathematics 170A, 170E, or Statistics 100A toward major requirements or another minor, then no other course from that set may be applied toward the minor requirements.

A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor.

All minor courses must be taken for a letter grade (unless not offered on that grading basis), and students must have a minimum grade of C- in each and an overall C (2.0) grade-point average in all courses taken for the minor. Successful completion of the minor is indicated on the transcript and diploma.

Graduate Study

Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Division website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Graduate Degrees

The Department of Computer Science offers Master of Science (MS) and Doctor of Philosophy (PhD) degrees in Computer Science. A concurrent degree program (Computer Science MS/Management MBA) is also offered.

Bioinformatics

Lower-Division Courses

19. Fiat Lux Freshman Seminars. (1 Seminar, 1 hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.)

99. Student Research Program. (1 to 2 Tutorial (supervised research or other scholarly work), three hours per week per unit. Entry-level research for lower-division students under minimum of faculty mentor. Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP grading.)

Upper-Division Course

199. Directed Research in Bioinformatics. (2 to 4 Tutorial, six to 12 hours. Limited to juniors/seniors. Supervised individual research under guidance of faculty mentor. Culminating paper required. May be repeated for credit. Individual contract required.)

Computer Science

Lower-Division Courses

1. Freshman Computer Science Seminar. (1 Seminar, 1 hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.)

2. Fiat Lux Freshman Seminars. (1 Seminar, 1 hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.)

30. Principles and Practices of Computing. (4 Lecture, four hours; discussion, two hours; outside study, six hours. Designed for students in computer science and related majors who do not have prior programming experience. Precursor course to introductory computer science sequence (courses 31, 32, 33). Teaches students how to use computers as tool for problem solving, creativity, and exploration through design and implementation of computer programs. Key topics are data types including integers, strings, and lists; control structures, including conditionals and loops; and functional decomposition.)

31. Introduction to Computer Science I. (4 Lecture, four hours; discussion, two hours; outside study, six hours. Introduction to computer science via theory, applications, and programming. Basic data types, operators and control structures. Input/output, procedural and data abstraction. Introduction to object-oriented software development. Functions, recursion. Arrays, strings, pointers. Abstract data types, object-oriented programming. Examples and exercises from computer science theory and applications.)


33. Introduction to Computer Organization. (5 Lecture, four hours; discussion, two hours; outside study, nine hours. Enforced requisite: course 32. Introductory course on computer architecture, assembly language, and operating systems fundamentals. Number systems, machine language, and assembly language. Procedure calls, stacks, interrupts, and traps. Assemblers, linkers, and loaders. Operating systems concepts: processes and process management, input/output (I/O) programming, memory management, file systems.)

35L. Software Construction Laboratory. (3 Laboratory, four hours; outside study, five hours. Requisite: course 31. Fundamentals of commonly used software tools and environments, particularly open-source tools to be used in upper-division computer science courses.)

M51A. Logic Design of Digital Systems. (4 Same as Electrical and Computer Engineering M16.) Lecture, four hours; discussion, two hours; outside study, six hours. Introduction to digital systems. Specification and implementation of combinational and sequential systems. Standard logic modules and programmable logic arrays. Specification and implementation of algorithmic systems: data and control sections. Number systems and arithmetic algorithms. Error control for digital information.)

97. Variable Topics in Computer Science. (1 to 4 Lecture, one to four hours; discussion, zero to two hours. Designed for fresher. May be repeated for credit in computer science not covered in regular computer science courses. May be repeated once for credit with topic or instructor change.)
99. Student Research Program. (1 to 2) Tutorial (supervised research or other scholarly work), three hours per week per unit. Entry-level research for lower-division students under guidance of faculty mentor. Students must be in good academic standing and enrolled in a major or minor in the College of Engineering. Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP grading.

Upper-Division Courses

111. Operating Systems Principles. (5) Lecture, four hours; discussion, two hours; outside study, six hours. Enforced requisites: course 111 and one course from Biostatistics 100A, Civil Engineering 110, Chemistry CM160A. (Same as Computer Engineering 117. Computer Networks: Physical Layer. (4)) Lecture, two hours; discussion, two hours; outside study, six hours. Not open to students with credit for course formerly numbered M117.) Lecture, two hours; discussion, two hours; outside study, six hours. Enforced requisites: course 111 and one course from Biostatistics 100A, Civil Engineering 110, Electrical Engineering 131A, Mathematics 170A, or Statistics 100A. Designed for juniors/seniors. Probability and stochastic process models as applied in computer science. Basic tools include random variables, conditional probability, expectation and higher moments, Bayes theorem, Markov chains. Applications include probabilistic algorithms, evidential reasoning, analysis of algorithms and data structures, reliability, communication protocol and queueing models. Letter grading.

117. Computer Networks: Physical Layer. (4) Formerly numbered M117.) Lecture, two hours; discussion, two hours; outside study, six hours. Not open to students with credit for course M171L. Introduction to fundamental computer communication concepts underlying and supporting modern networks, with focus on wireless communications and media access layers of network protocol stack. Systems include wireless LANs (IEEE802.11) and ad hoc wireless and personal area networks (e.g., Bluetooth) that support modern networking-based mobile radio-equipped devices (smart phones, tablets, etc.) as sensor platforms for personal applications such as wireless health, positioning, and environment awareness, as well as experimental laboratory sessions included. Letter grading.

118. Computer Network Fundamentals. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Enforced requisites: course 111. Designed for juniors/seniors. Introduction to design and performance evaluation of computer networks, including such topics as what protocols are, layered network architecture, transport, network address, network applications, transport protocols, routing algorithms and protocols, internetworking, congestion control, and link layer protocols including Ethernet and wireless channel. Letter grading.

M119. Fundamentals of Embedded Networked Systems. (4) (Same as Electrical and Computer Engineering M119.) Lecture, four hours; discussion, one hour; outside study, seven hours. Requisites: Civil and Environmental Engineering 110 or Electrical and Computer Engineering 131A or Mathematics 170A or Statistics 100A, course 118 or Electrical and Computer Engineering 132B, course 33. Design trade-offs and principles related to the design of cyber physical systems such as devices and systems constituting Internet of Things. Topics include signal propagation and modeling, sensing, node architecture and operation, and applications discussed. CM121. Introduction to Bioinformatics. (4) (Same as Chemistry CM160A) Lecture, four hours; discussion, two hours. Enforced requisites: course 32 or Program in Computing 10C with grade of C– or better, and one course from Biostatistics 100A, Civil Engineering 110, Electrical Engineering 131A, Mathematics 170A, or Statistics 100A. Prior knowledge of biology not required. Designed for engineering students as well as students from biological sciences and medical school. Introduction to bioinformatics and methodologies, with emphasis on computing aspects and inventing new computational and statistical techniques to analyze biological data. Focus on sequence analysis and alignment algorithms. Concurrently scheduled with course CM221. P/NP grading.

CM122. Algorithms in Bioinformatics. (4) (Same as Chemistry CM160B.) Lecture, four hours; discussion, two hours. Requisites: course 32 or Program in Computing 10C with grade of C– or better, one course from Biostatistics 100A, Civil Engineering 110, Electrical Engineering 131A, Mathematics 170A, or Statistics 100A. Course CM121 is not requisite to CM122. Designed for engineering students as well as students from biological sciences and medical school. Development and application of computational approaches to biological questions, with focus on formulating interdisciplinary problems as computational problems and then solving these problems using algorithmic techniques. Computational techniques include those from statistics and computer science. Concurrently scheduled with course CM123. P/NP grading.

CM123. Machine Learning Applications in Genetics. (4) (Same as Human Genetics CM124.) Lecture, four hours; discussion, two hours; outside study, six hours. Requisites: course 32 or Program in Computing 10C with grade of C– or better, and one course from Civil Engineering 110, Electrical and Computer Engineering 131A, Mathematics 170A, or Statistics 100A. Designed for engineering students as well as students from biological sciences and medical school. Introduction to computational analysis of genetic variation and computational interdisciplinary research in genetics. Topics include introduction to genomics, identification of genes involved in disease, inferences regarding design and implementation of distributed software systems that are bloated, buggy, and difficult to test, and concrete exploration of three major programming paradigms—functional, object-oriented, and logic programming—by prototyping implementations of languages in each. Analysis of prototypes to shed light on design and structural properties of each language and paradigm and to allow easy comparison among them. Hands-on experience designing, prototyping, and evaluating new languages, language abstractions, and/or programming environments. Concurrently scheduled with course C230A. Letter grading.

C137A. Prototyping Programming Languages. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Enforced requisite: course 131. How different programming language paradigms provide dramatically different ways of thinking about computation and software trade-offs, such as modularity, expressiveness, and safety. Concrete exploration of three major programming paradigms—functional, object-oriented, and logic programming—by prototyping implementations of languages in each. Analysis of prototypes to shed light on design and structural properties of each language and paradigm and to allow easy comparison among them. Hands-on experience designing, prototyping, and evaluating new languages, language abstractions, and/or programming environments. Concurrently scheduled with course C230A. Letter grading.

C137B. Programming Language Design. (4) Seminars, four hours; outside study, six hours. Enforced requisite: course C137A. Study of various programming language designs, from computing history and research literature, that attempt to address problems of software systems that are expensive, large, and difficult to maintain and extend despite trends in computing toward ever higher levels of abstraction for programming, hands-on experience designing, prototyping, and evaluating new languages, language abstractions, and/or programming environments. Concurrently scheduled with course C230B. Letter grading.


143. Web Applications. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Enforced requisite: course 143. Important concepts and theory for building effective and safe Web applications and frameworks. Topics include basic Web architecture and protocol, XML and XML query language, mapping between XML and relational models, information retrieval model and theory, security and user model, e-commerce, and distributed transactions. Letter grading.

145. Introduction to Data Mining. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Enforced requisite: course 180. Introductory survey of data mining (process of extracting useful patterns, changes, associations, and anomalies in massive databases), knowledge engineering, and wide spectrum of data mining application areas such as bioinformatics, e-commerce, and social studies, financial markets, multimedia data processing, network monitoring, and social service analysis. Letter grading.

M146. Introduction to Machine Learning. (4) (Same as Electrical and Computer Engineering M146.) Lecture, four hours; discussion, one hour; outside study, seven hours. Requisites: course 33, and Civil and Environmental Engineering 131A, Mathematics 170A, or Statistics 100A. Prior knowledge of biology not required. Designed for engineering students as well as students from biological sciences and medical school. Introduction to bioinformatics and methodologies, with emphasis on computing aspects and inventing new computational and statistical techniques to analyze biological data. Focus on sequence analysis and alignment algorithms. Concurrently scheduled with course CM122. P/NP grading.

136. Introduction to Computer Security. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Enforced requisite: course 118. Introduction to the concepts of computer security and why it is necessary for students to understand risks and mitigations associated with protection of systems and data. Topics include security models and architectures, security threats and risk analysis, access control and authorization/authorization, cryptography, network security, secure application design, and ethics and law. Letter grading.

C137A. Prototyping Programming Languages. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Enforced requisite: course 131. How different programming language paradigms provide dramatically different ways of thinking about computation and software trade-offs, such as modularity, expressiveness, and safety. Concrete exploration of three major programming paradigms—functional, object-oriented, and logic programming—by prototyping implementations of languages in each. Analysis of prototypes to shed light on design and structural properties of each language and paradigm and to allow easy comparison among them. Hands-on experience designing, prototyping, and evaluating new languages, language abstractions, and/or programming environments. Concurrently scheduled with course C230A. Letter grading.

C137B. Programming Language Design. (4) Seminars, four hours; outside study, six hours. Enforced requisite: course C137A. Study of various programming language designs, from computing history and research literature, that attempt to address problems of software systems that are expensive, large, and difficult to maintain and extend despite trends in computing toward ever higher levels of abstraction for programming, hands-on experience designing, prototyping, and evaluating new languages, language abstractions, and/or programming environments. Concurrently scheduled with course C230B. Letter grading.

144. Web Applications. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Enforced requisite: course 143. Important concepts and theory for building effective and safe Web applications and frameworks. Topics include basic Web architecture and protocol, XML and XML query language, mapping between XML and relational models, information retrieval model and theory, security and user model, e-commerce, and distributed transactions. Letter grading.

145. Introduction to Data Mining. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Enforced requisite: course 180. Introductory survey of data mining (process of extracting useful patterns, changes, associations, and anomalies in massive databases), knowledge engineering, and wide spectrum of data mining application areas such as bioinformatics, e-commerce, and social studies, financial markets, multimedia data processing, network monitoring, and social service analysis. Letter grading.

M146. Introduction to Machine Learning. (4) (Same as Electrical and Computer Engineering M146.) Lecture, four hours; discussion, one hour; outside study, seven hours. Requisites: course 33, and Civil and Engineering
environmental Engineering 110 or Electrical and Computer Engineering 131A or Mathematics 170A or 170E or Statistics 100A. Introduction to breadth of data science. Foundations for modeling data sources, principles of operation of common tools for data analysis, and application of tools and models to data gathering and analysis. Topics include statistical foundations, regression, classification, kernel methods, clustering, expectation maximization, principal component analysis, decision trees, reinforcement learning and deep learning. Letter grading.

M151B. Computer Systems Architecture. (Same as Electrical and Computer Engineering M116C) Lecture, four hours; laboratory, two hours; outside study, six hours. Enforced requisites: courses 32, and M51A or Electrical and Computer Engineering M16. Recommended: courses 111, and M152A or Electrical and Computer Engineering M116L. Computer system organization and design, implementation of CPU data path and control, instruction set design, memory hierarchy. Letter grading.

M152A. Introductory Digital Design Laboratory. (Same as Electrical and Computer Engineering M116L) Lecture, four hours; discussion, two hours; outside study, six hours. Enforced requisite: course M51A or Electrical and Computer Engineering M16. Hands-on design, implementation, and debugging of digital logic circuits, use of design tools to create combinational and sequential logic, automatic capture and simulation, implementation of complex circuits using programmed array logic, design projects. Letter grading.

M152B. Digital Design Project Laboratory. (Laboratory, four hours; discussion, two hours; outside study, six hours. Enforced requisite: course M151B or Electrical Engineering M116C. Recommended: Engineering 18SEW or 158EW. Limited to seniors. Design and implementation of digital systems using field-programmable gate arrays (e.g., processors, special-purpose processors, device controllers, and input/output interfaces). Students work in teams to develop and implement designs and to document and give oral presentations of their work. Letter grading.


16B. Computational Methods for Medical Imaging. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Requisites: course 32 or Program in Computing 10C with grade of C– or better. Mathematics 33A, one course from Civil and Environmental Engineering 10C, and Computer Engineering 131A, Mathematics 170A, 170E, or Statistics 100A. Theory and practice of image acquisition including angiography, computed tomography (CT), and magnetic resonance imaging (MRI). Project-based course covers advanced topics in medical imaging including image processing, attaining, predictive modeling, personalized medicine, data driven and machine learning methods. Letter grading.

170A. Mathematical Modeling and Methods for Computer Science. (4) Lecture, four hours; laboratory, two hours; outside study, six hours. Requisites: course 32 or Program in Computing 10C with grade of C– or better. Mathematics 33A, one course from Civil and Environmental Engineering 10C, and Computer Engineering 131A, Mathematics 170A, 170E, or Statistics 100A. Theory and practice of image acquisition including angiography, computed tomography (CT), and magnetic resonance imaging (MRI). Project-based course covers advanced topics in medical imaging including image processing, attaining, predictive modeling, personalized medicine, data driven and machine learning methods. Letter grading.

170B. Introduction to Computer Graphics. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Enforced requisite: course 174A. State of art in computer graphics: geometric and image-based rendering. How to use cameras and light to capture images using perspective and orthographic transformations. Basics of modeling primitives such as polygons and implicit and parametric surfaces. Basic ideas behind color spaces, illumination models, shading, and texture mapping. Letter grading.

174A. Introduction to Computer Graphics. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Enforced requisite: course 174A. State of art in computer graphics: geometric and image-based rendering. How to use cameras and light to capture images using perspective and orthographic transformations. Basics of modeling primitives such as polygons and implicit and parametric surfaces. Basic ideas behind color spaces, illumination models, shading, and texture mapping. Letter grading.

174B. Introduction to Computer Graphics: Three-Dimensional Photography and Rendering. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Enforced requisite: course 174A. State of art in computer graphics: geometric and image-based rendering. How to use cameras and light to capture images using perspective and orthographic transformations. Basics of modeling primitives such as polygons and implicit and parametric surfaces. Basic ideas behind color spaces, illumination models, shading, and texture mapping. Letter grading.

17C4. Computer Animation. (4) Lecture, four hours; discussion, two hours; outside study, four hours. Enforced requisite: course 174A. Designed for juniors/seniors. Introduction to computer animation, including basic principles of character modeling, forward and inverse kinematics, character dynamics, motion capture animation techniques, physics-based animation of particles and systems, and motor control. Concurrently scheduled with course C274C. Letter grading.

180. Introduction to Algorithms and Complexity. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Enforced requisites: course 32, Mathematics 61. Designed for junior/senior Computer Science majors. Introduction to design and analysis of algorithms. Design techniques: divide-and-conquer, greedy method, dynamic programming; selection of prototypical algorithms; choice of data structures and representations; complexity measures: time, space, upper, lower bounds, asymptotic complexity; NP-completeness. Letter grading.


182. Dynamic BioSystems Modeling and Simulation Methodology. (Same as Bioengineering M182.) Lecture, four hours; discussion, one hour; laboratory, two hours; outside study, five hours. Requisites: Program in Computer Science 53A or 3B, or 31A and 31B. Recommended requisite or corequisite: Mathematics 3C, 32A, or 32T. For undergraduate students in life, computational, engineering, and biological sciences. Introduction to explicit modeling and simulation of dynamic biological systems. Basic methodology for transforming biological, biochemical, and physiological systems in silico. Special emphasis on applying computer science techniques for studying their behavior. Structural models, formulated from basic conservation and mass action laws and feedback concepts, are further transformed into first-order differential equations and implemented in simulation diagrams for quantifying and exploring biosystem properties. Examples show how to use these explicit models to gain clarity on nature of biosystem phenomena, and frame questions and explore new ideas for research. Letter grading.

183. Introduction to Cryptography. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Preparation: knowledge of basic probability theory. Requisite or corequisite: completion of Computer Cryptography, computer security, and basic concepts and techniques. Topics include notions of hardness, one-way functions, hard-core bits, pseudorandom generators, pseudorandom permutations, semantic security, public-key and private-key encryption, key-agreement, homomorphic encryption, private information retrieval and voting protocols. Subtopics include message authentication, key distribution, interactive proofs, zero-knowledge proofs, collision-resistant hash functions, commitment protocols, and two-party secure computation with static security. Letter grading.

M184. Introduction to Computational and Systems Biology. (2) Same as Bioengineering M184 and Computational and Systems Biology M184.) Lecture, two hours; outside study, four hours. Enforced requisite: one course from 31, Civil Engineering M20, Mechanical and Aerospace Engineering M20, or Program in Computing 10A; and Life Sciences 30B or Mathematics 3B or 31B. Survey course designed to introduce students to computational and systems modeling and computation in biology and medicine, providing motivation, flavor, course, and cutting-edge computational and biological case studies and aiming for more informed basis for focused studies by students with computational and systems biology interests. Presentations by individual UCLA researchers discussing their active computational and systems biology research. P/NP grading.

CM186. Computational Systems Biology: Modeling and Simulation of Biological Systems. (Same as Bioengineering CM186, Computational and Systems Biology M186, and Ecology and Evolutionary Biology M178.) Lecture, four hours; laboratory, three hours; outside study, eight hours. Dynamic biosystems modeling and computer simulation methods for studying biological and medical problems at multiple levels of organization. Control system, multicompartamental, predator-prey, pharmacokinetic (PK), pharmacodynamic (PD), and other structural modeling methods applied to life sciences problems at molec-
ular, cellular (biochemical pathways/networks), organ, and organismic levels. Both theory- and data-driven modeling, with focus on translating biomodeling goals and data into mathematics models and implementing them for simulation and analysis. Basics of numerical simulation algorithms, with modeling software exercises in class and PC laboratory assignments. Concurrently scheduled with course CM286. Letter grading.

CM157. Research Communication in Computational and Systems Biology. (4) Same as Bioengineering CM187 and Computational and Systems Biology M187.) Lecture, four hours; outside study, eight hours. Requisite: course M182 or CM186 or Computational and Systems Biology M150. Closely directed, interactive, and real research experience in active quantitative systems biology research laboratory. Direction to focus on topics of current interest in scientific community, appropriate to student interests and capabilities. Critiques of oral presentations and written progress reports explain how to proceed with research results. Major emphasis on effective research reporting, both oral and written. Concurrently scheduled with course CM287. Letter grading.

188. Special Courses in Computer Science. (4) Lecture, four hours; discussion, two hours; outside study, eight hours. Requisite: course CM121 or CM123 or Computer Science / 321. Special topics in computer science for undergraduate students taught on experimental or temporary basis, such as those taught by resident and visiting faculty members. May be repeated for credit with topic or instructor change. Letter grading.

188SA. Individual Studies for USIE Facilitators. (1) Tutorial, to be arranged. Enforced corequisite: Honors Collegium 101E. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor to discuss selected USIE seminar topic, conduct preparatory research, and begin preparation of syllabus. Individual contract with faculty mentor required. May not be repeated. Letter grading.


188SC. Individual Studies for USIE Facilitators. (2) Tutorial, to be arranged. Enforced requirement: course CM121. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor while facilitating USIE 88S course. Individually structured dataset. Letter grading.

192. Methods and Application of Collaborative Learning Theory in Life Sciences. (2) Seminar, two hours; clinic, four hours. Requisites: course 192A or Life Sciences 112A (may be taken concurrently), and at least one term of prior experience in same course in which collaborative learning theory is practiced and refined under supervision of instructors. With instructor guidance, students apply pedagogical principles based on current education research, assist with development of innovative instructional materials, and receive frequent feedback on their progress. May be repeated for credit. Letter grading.

192A. Introduction to Collaborative Learning Theory and Practice. (1) Seminar, one hour; outside study, two hours. Training seminar for undergraduate students who are selected for learning assistance (LA) program. Exploration of current tools in pedagogy and education research focused on methods of learning and their practical application in small-group settings. Develop practical communication skills with constant assessment of and feedback on progress. Letter grading.

194. Research Group Seminars: Computer Science. (4) Seminar, four hours; outside study, eight hours. Seminar for undergraduate students who are part of research group. Discussion of research methods and current literature in field or of research of faculty members or students. May be repeated for credit. Letter grading.

199. Directed Research in Computer Science. (2 to 8) Tutorial, to be arranged. Limited to juniors/seniors. Supervised individual research or investigation under guidance of faculty mentor. Culuminating paper or project required. May be repeated for credit with approval of individual contract; enrollment petitions available in Office of Academic and Student Affairs. Letter grading.

Graduate Courses

201. Computer Science Seminar. (2) Seminar, four hours; outside study, two hours. Designed for graduate students interested in current research topics in computer science. May be repeated for credit. S/U grading.

202. Advanced Computer Science Seminar. (4) Seminar, four hours; outside study, eight hours. Preparation: completion of major field examination in computer science. Current computer science research into theory, analysis and synthesis of, and applications of information processing systems. Each member completes one tutorial and one or more original pieces of work in one specialized area. May be repeated for credit. Letter grading.

205. Health Analytics. (4) Lecture, four hours; outside study, eight hours. Requisite: course 118. Focus on mastering existing set of Internet protocols, Internet development, core transport protocols, routing protocols, DNS, NTP, and security protocols such as DNSSEC, to understand principles behind design of these protocols, appreciate their design tradeoffs, and learn lessons from their operations. Letter grading.

217B. Advanced Topics in Internet Research. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Enforced requisite: course 217A. Designed for graduate students of Internet protocols. In-depth introduction to Internet protocols, TCP/IP, Internet applications, Internet exploration and design. Letter grading.

218. Advanced Computer Networks. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Requisites: courses 112, 118. Review of Internet and ISO/OSI model, major networks: LANs, MANs, ANMs, ATM, Flow and congestion control; bandwidth allocation. Internetc. Letter grading.

219. Current Topics in Computer System Modeling Analysis. (4) Lecture, eight hours; outside study, four hours. Review of current literature in area of computer system modeling analysis in which instructor has developed special proficiency as consequence of research interests. Students report on selected topics. May be repeated for credit with consent of instructor. Letter grading.

M213B. Energy-Aware Computing and Cyber-Physical Systems. (4) Same as Electrical and Computer Engineering M202B.) Lecture, four hours; outside study, eight hours. Requisite: course M51A or Electrical and Computer Engineering M16. Recommended: course 111A and CM186 or Electrical and Computer Engineering M116C. System-level management and cross-layer methods for power and energy consumption in computing and communication at various scales ranging from embedded, mobile, personal, enterprise, and data-center scale. Computing, networking, sensing, and control technologies and algorithms for improving energy sustainability in human-centric cyber-physical systems. Energy modeling of energy consumption, energy sources, and energy storage; dynamic power management; power-performance scaling and energy proportionality; duty-cycling; power-aware scheduling; low-power protocols; battery modeling and management; thermal management; sensing of power consumption. Letter grading.

216. Network Architectures. (4) Lecture, four hours; outside study, eight hours. Enforced requisite: course 118. Focus on mastering existing set of Internet protocols, Internet development, core transport protocols, routing protocols, DNS, NTP, and security protocols such as DNSSEC, to understand principles behind design of these protocols, appreciate their design tradeoffs, and learn lessons from their operations. Letter grading.

M221. Introduction to Bioinformatics. (4) Same as Bioinformatics M221, Chemistry CM260A, and Human Genetics M260A.) Lecture, four hours; discussion, two hours. Requisites: course 32 or Program in Computing 10C with grade of C– or better, and one course from Biostatistics 100A, Civil Engineering 110, Electrical Engineering 131A, Mathematics 170A, or Statistics 10A. Lecture course only, not required. Designed for engineering students as well as students from biological sciences and medical school. Introduction to bioinformatics and methodologies, with focus on current issues and new computational and statistical techniques to analyze biological data. Focus on sequence analysis and alignment algorithms. May be repeated for credit with consent of instructor scheduled with course CM212. S/U or letter grading.

M222. Algorithms in Bioinformatics. (4) Same as Bioinformatics M222 and Chemistry CM260B.) Lecture, four hours; discussion, two hours. Requisites:
couse 32 or Program in Computing 10C with grade of C– or better, and one course from Bioinformatics 100A, Civil Engineering 110, Electrical Engineering 131A, Mathematics 170A, or Statistics 100A. Course CM221 is not requisite to CM222. Designed for engineering students and others from biological sciences and medical school. Development and application of computational approaches to biological questions, with focus on formulating interdisciplinary problems as computational problems solving interdisciplinary problems using algorithmic techniques. Computational techniques include those from statistics and computer science. Concurrently scheduled with course CM122. Letter grading.

CM224. Machine Learning Applications in Genet- ics. (4) Same as Bioinformatics M224 and Human Genetics CM224.) Lecture, four hours; discussion, two hours; outside study, six hours. Requisites: course 32 or Program in Computing 10C with grade of C– or better, Mathematics 33A, and one course from Civil Engineering 110, Electrical and Computer Engineering 131A, Mathematics 170A, or Statistics 100A. Designed for engineering students as well as students from biological sciences and medical school. Introduction to computational analysis of genetic variation and computational approaches in biological research. Topics include introduction to genetics, identification and quantification of genetic markers, computational methods for design and analysis of genetic association studies, cross-population analysis, association study design, isolated and admixed populations, population structure, human structural variation, model organisms, and genomic technologies. Computational techniques include those from statistics and computer science. Concurrently scheduled with course CM124. Letter grading.

M225. Computational Methods in Genomics. (4) (Same as Bioinformatics M225 and Human Genetics M265.) Lecture, two and one half hours; discussion, two and one half hours; outside study, seven hours. Introduction to computational approaches in bioinformatics, genomics, and computational genetics and preparation for computational interdisciplinary re- search in genetics and genomics. Topics include gen- ome analysis, regulatory genomics, association analysis, association study design, isolated and admixed populations, population structure, human structural variation, model organisms, and genomic technologies. Computational techniques and methods in- clude those from statistics and computer science. Letter grading.

M226. Machine Learning in Bioinformatics. (4) (Same as Bioinformatics M226 and Human Genetics M226.) Lecture, four hours; outside study, eight hours. Requisite: course 32 or Program in Computing 10C with grade of C– or better. Recommended: one course from Bioinformatics 100A, 100A, Civil Engineering 110, Electrical Engineering 131A, Mathematics 170A, or Statistics 100A. Familiarity with probability, statistics, linear algebra, and algorithms ex- pected. Designed for engineering students as well as students from biological sciences and medical school. Biology has become data-intensive science. Bottle- neck in being able to make sense of 100A data pro- cesses has shifted from data generation to statistical models and inference algorithms that can analyze these datasets. Statistical machine learning provides important tools to biologists. Knowledge of data analysis offers new challenges to field of machine learning. Ex- amination of statistical and computational aspects of machine learning techniques and their application to key biological questions. Letter grading.

M229S. Seminar: Current Topics in Bioinformatics. (4) (Same as Biological Chemistry M229S and Human Genetics M229S.) Seminar, four hours; outside study, eight hours. Designed for graduate engineering stu- dents as well as students from biological and medical school. Introduction to current topics in bioin- formatics, genomics, and computational genetics and preparation for computational interdisciplinary re- search in genetics and genomics. Topics include ge- nome analysis, regulatory genomics, association analysis, association study design, isolated and admixed populations, population structure, human structural variation, model organisms, and genomic tech- nologies. Computational techniques include those from statistics and computer science. May be re- peated for credit with topic change. Letter grading.

230. Software Engineering. (4) Lecture, four hours; discussion, two hours. Recommended preparation for undergraduate students: previous software engineering course. Required preparation for graduate students: undergraduate-level knowledge of data structures and object-oriented program languages. As software sys- tems become increasingly large and complex, auto- mated software engineering analysis and develop- ment tools play important role in various software en- gineering tasks, such as design, construction, evolution, and testing of software systems. Introduction to foundations, techniques, tools, and applications of automated software engineering technology. Development, extension, and evaluation of mini automated software engineering analysis tool and assessment of how tool fits into software develop- ment process. Introduction to current research topics in automated software engineering. S/U or letter grading.

231. Types and Programming Languages. (4) Lecture, four hours; outside study, eight hours. Requisite: course 131. Introduction to static type systems and their usage in programming language design and soft- ware reliability. Concepts in statically-typed lambda calculus, type soundness proofs, types for multiple references, types for exceptions. Parametric polymorphism, let-bound polymorphism, polymor- phic type inference, object-oriented programming—combining parametric polymorphism and subtyping. Types for modules, parameterized modules. Formal specification and implementation of variety of type systems and to a small but complete “programming lan- guage” on modern applications of type systems. Letter grading.

232. Static Program Analysis. (4) Lecture, four hours; outside study, eight hours. Requisite: course 132. Introduction to object-oriented programs and its usage for optimization and bug finding. Class hierarchy analysis, rapid type analysis, equality-based analysis, subset-based analysis, flow- insensitive and flow-sensitive analysis, context-insen- sitive and context-sensitive analysis. Soundness proofs for static analyses. Efficient data structures for static analysis information such as directed graphs and binary decision diagrams. Flow-directed method inlining, type-safe method inlining, synchronization optimization, deadlock detection, security vulnerability detection. Formal specification and implementation of various program analysis algorithms from recent research literature on modern applications of static analysis. Letter grading.

233A. Parallel Programming. (4) Lecture, four hours; outside study, eight hours. Requisite: course 143. Introduction to parallel program verification. Letter grading.

233B. Verification of Concurrent Programs. (4) Lecture, four hours; discussion, two hours; outside study, eight hours. Requisite: course 143. Theoretical and technological foundation of Intelligent Database Systems, that attempt to address problems of software systems that are bloated, buggy, and diffi- cult to maintain and extend despite trend in comput- ing toward ever higher levels of abstraction for pro- gramming. Hands-on experience designing, prototype- ting, and evaluating new languages, language abstractions, and/or programming environments. Concurrently scheduled with course C137B. Letter grading.

236. Computer Security. (4) Lecture, one hour; laboratory, one hour; outside study, seven hours. Preparation: C or C++ programming experience. Enforced requisite: course 111. In-depth investigation of operating systems issues through guided construction of research operating systems for PC machines and consideration of recent literature. Memory manage- ment and protection, interrupts and traps, processes, interprocess communication, preemptive multitasking, file systems. Virtualization, networking, profiling, re- search project on operating systems projects. Topics include basic principles and goals of computer security, common security tools, use of cryptographic protocols for security, security tools (firewalls, virtual private networks, honeypots), virus and worm protec- tion, security assurance and testing, design of secure programs, privacy, applying security principles to real- istic problems, and new and emerging threats and se- curity issues. Letter grading.

237A. Prototyping Programming Languages. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Enforced requisite: course 131. How different programming language paradigms provide different performance characteristics and trade-offs and offer trade-offs on many dimensions, such as modularity, extensibility, expressiveness, and safety. Concrete exploration of three major programming par- adigms: functional, object-oriented, and imperative pro- gramming—by prototyping implementations of lan- guages in each. Analysis of prototypes to shed light on design and structural properties of each language and to well a paradigm against another. Hands-on experience implementing new abstractions, both as stand-alone languages and as li- braries in existing languages. Concurrently scheduled with course C137A. Letter grading.

237B. Programming Language Design. (4) Seminar, four hours; outside study, eight hours. Enforced requisite: course C237A. Study of various program- ming language designs, from computing history and recent literature, that attempt to address problems of software systems that are bloated, buggy, and diffi- cult to maintain and extend despite trend in comput- ing toward ever higher levels of abstraction for pro- gramming. Hands-on experience designing, prototype- ting, and evaluating new languages, language abstractions, and/or programming environments. Concurrently scheduled with course C137B. Letter grading.

240A. Databases and Knowledge Bases. (4) Lecture, four hours; outside study, eight hours. Requisite: course 143. Theoretical and technological foundation of Intelligent Database Systems, that attempt to address problems of software systems that are bloated, buggy, and diffi- cult to maintain and extend despite trend in comput- ing toward ever higher levels of abstraction for pro- gramming. Hands-on experience designing, prototype- ting, and evaluating new languages, language abstractions, and/or programming environments. Concurrently scheduled with course C137A. Letter grading.

240B. Advanced Data and Knowledge Bases. (4) Lecture, four hours; outside study, eight hours. Requisite: courses 143, 240A, or 240B. Study of database and knowledge representation. Rule-based languages and nonmonotonic reasoning. Temporal queries, spa- tial queries, and uncertainty in deductive databases and object representations of this technology. Other topics include object-relational systems and data mining tech- niques. Letter grading.
alphanumeric, long text, images/pictures, video, and voice. Multimedia information systems requirements. Data models. Searching and accessing databases and across Internet by alphanumeric, image, video, and audio content. Querying, visual languages, and communication. Database design and organization, logical and physical. Indexing methods. Internet multimedia streaming. Other topics at discretion of instructor. Letter grading.

244. Distributed Database Systems. (4) Lecture, four hours; outside study, eight hours. File allocation, intelligent directory design, transaction management, deadlock, strong and weak concurrency control, commit protocols, foreign key querying, network protocols, database systems, fault recovery techniques, network partitioning, examples, trade-offs, and design experiences. Letter grading.

245. Big Data Analytics. (4) Lecture, four hours; outside study, eight hours. Requisites: courses 143 or 180 or equivalent. With unprecedented rate at which data is being collected today in almost all fields of human endeavor, there is emerging economic and scientific need to extract useful information from it. Data analytics is process of automatic discovery of patterns, changes, associations, and anomalies in massive data, and is highly inter-disciplinary field requiring knowledge from several disciplines, including database systems, data warehousing, data mining, machine learning, statistics, algorithms, data visualization, and cloud computing. Survey of main topics in field, 4 or 5 topics selected and latest advances, as well as wide spectrum of applications such as bioinformatics, E-commerce, environmental study, financial study, market study, multimedia data processing, network monitoring, social analysis. Letter grading.


247. Advanced Data Mining. (4) Lecture from it, four hours; outside study, eight hours. Requisite: course 145 or M146 or equivalent. Concepts, introduction to data mining, including database systems, data warehousing, data mining, machine learning, statistics, algorithms, data visualization, and cloud computing. Survey of main topics in field, 4 or 5 topics selected and latest advances, as well as wide spectrum of applications such as bioinformatics, E-commerce, environmental study, financial study, market study, multimedia data processing, network monitoring, social analysis. Letter grading.

249. Current Topics in Data Structures. (2 to 12) Lecture, four hours; outside study, eight hours. Review of current literature in area of data structures in which instructor has developed special proficiency as consequence of research interests. Students report on selected topics. May be repeated for credit with consent of instructor. Letter grading.

251A. Advanced Computer Architecture. (4) Lecture, four hours; final study, eight hours. Requisite: course M151B. Recommended: course 111. Design and implementation of high-performance systems, advanced memory hierarchy techniques, static and dynamic pipelining, superscalar and VLIW processors, branch prediction, speculative execution, software support for instruction-level parallelism, simulation-based performance analysis and evaluation, state-of-art design, computer-aided introduction to parallel architectures. Letter grading.

251B. Parallel Computer Architectures. (4) Lecture, four hours; outside study, eight hours. Requisite: courses 251A, 251B, or consent of instructor. Architecture, organization, and implementation of scalable computing systems, multithreaded processors, multiprocessors, and MIMD systems, symmetric multiprocessors, distributed-shared-memory systems, messages-passing systems, multicores chips, clusters, interconnection networks, host/network interfaces, switching element design, communication primitives, cache coherency, memory consistency models, synchronization primitives, state-of-art design examples. Letter grading.


256A. Design of VLSI Circuits and Systems. (4) (Same as Electrical and Computer Engineering M216A.) Lecture, four hours; discussion, two hours; laboratory, four hours. Requisites: course M51A or Electrical and Computer Engineering M16, and Electrical and Computer Engineering 115A. Recommended: Electrical and Computer Engineering B216A. VLSI design methodology and application in computer systems. Fundamental design techniques that can be used to implement complex integrated systems on chips. Letter grading.

256C. LSI in Computer System Design. (4) (Same as Electrical and Computer Engineering M216C.) Lecture, four hours; laboratory, four hours; outside study, four hours. Requisite: course M256A. LSI/VLSI design and application in computer systems. In-depth studies of VLSI architectures and VLSI design tools. Letter grading.

258F. Physical Design Automation of VLSI Systems. (4) Lecture, four hours; outside study, eight hours. Detailed study of various physical design automation problems of VLSI circuits, including logic partitioning, floorplanning, placement, global routing, channel and switchbox routing, planar routing and via minimization, compaction, and performance-driven layout. Discussion of applications of number of important optimization techniques, such as network flows, Steiner trees, simulated annealing, and genetic algorithms. Letter grading.

258G. Logic Synthesis of Digital Systems. (4) Lecture, four hours; outside study, eight hours. Requisites: courses M51A, 180. Detailed study of various problems in logic-level synthesis of VLSI digital systems, including symbolic algorithms for optimization, multilevel Boolean network optimization; technology mapping for standard cell designs and field-programmable gate-array (FPGA) designs; retiming for sequential circuits; and applications of binary decision diagrams (BDDs). Letter grading.

258H. Analysis and Design of High-Speed VLSI Interconnects. (4) Lecture, four hours; outside study, eight hours. Requisites: courses M252A, 258F. Detailed study of high-speed VLSI interconnects at both integrated circuit (IC) and circuit board levels, including interconnect capacitance and resistance, lossless and lossy transmission lines, cross-talk and power distribution noise, delay models and power dissipation models, interconnect topology and geometry optimization, and clocking for high-speed systems. Letter grading.

261. Current Topics in Computer Science/Systems Design/Architecture. (2 to 12) Lecture, four hours; outside study, eight hours. Review of current literature in area of computer science and system design in which instructor has developed special proficiency as consequence of research interests. Students report on selected topics. May be repeated for credit with topic change. Letter grading.

260. Machine Learning Algorithms. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Recommended requisite: course 180. Problems of identifying patterns in data. Machine learning allows computers to learn potential complex patterns from data and to make decisions based on these patterns. Introduction to fundamentals of this discipline to provide both conceptual grounding and practical experience with several learning algorithms. Techniques and examples used in areas such as healthcare, financial systems, commerce, and social networking. Letter grading.

261A. Problem Solving and Search. (4) Lecture, four hours; outside study, eight hours. Requisite: course 180. In-depth treatment of systematic problem-solving search algorithms in artificial intelligence, including probabilistic belief forms; heuristic search; linear and non-linear space algorithms, real-time search, heuristic evaluation functions, two-player games, and constraint-satisfaction problems. Letter grading.

262A. Learning and Reasoning with Bayesian Networks. (4) Lecture, four hours; outside study, eight hours. Requisite: course 112 or Electrical Engineering 131A. Review of several formalisms for representing and managing uncertainty in reasoning systems; presentation of comprehensive description of Bayesian inference using belief networks representation. Letter grading.


262Z. Current Topics in Cognitive Systems. (4) Lecture, four hours; outside study, eight hours. Requisite: course 262A. Additional requisites for each offering announced in advance by department. Theory and implementation of systems that emulate or support human reasoning. Current literature and individual studies in artificial intelligence, knowledge-based systems, decision support systems, computational psychology, and heuristic programming theory. May be repeated for credit with topic change. Letter grading.

263. Natural Language Processing. (4) Lecture, four hours; outside study, eight hours. Natural language processing (NLP) enables computers to understand and generate the rich and complex human languages. NLP techniques have been widely used in many applications, including machine translation, question answering, machine summarization, and information extraction. Study of fundamental elements and recent trends in NLP. Students gain ability to apply NLP techniques in text-oriented applications, understand machine learning and algorithms used in NLP, and propose new approaches to solve NLP problems. Letter grading.

263A. Language and Thought. (4) Lecture, four hours; outside study, eight hours. Requisite: course 130 or 131 or 161. Introduction to natural language processing (NLP), with emphasis on semantics. Presents NLP procedures for tasks in natural language processing, including question answering, paraphrasing, machine translation, word-sense disambiguation, narrative and editorial comprehension. Examination of both symbolic and statistical approaches to language processing and acquisition. Letter grading.

263C. Animat-Based Modeling. (4) Lecture, four hours; outside study, eight hours. Requisite: course 133 or 161 or 161A. Animat-based modeling allows behavior simulation using artificial life software agents embedded in simulated dynamic environments. Emphasis on modeling goal-oriented behavior via neurocontrollers, adaptation via reinforcement learning, and emergence. programmers. Animat-based tasks include foraging, mate-finding, predation, navigation, predator avoidance, cooperation, nest construction, communication, and parenting. Letter grading.

Computer Science / 323
264A. Automated Reasoning: Theory and Applications. (4) Lecture, four hours; laboratory, four hours; outside study, four hours. Requisite: course 161. Introduction to theory and practice of automated reasoning using propositional and first-order logic. Topics include syntax and semantics of formal logic; algorithms for logical reasoning, including satisfiability and entailment; syntactic and semantic restrictions on knowledge bases; effect of these restrictions on expressiveness, computational and inferential tractability; applications of automated reasoning to diagnosis, planning, design, formal verification, and reliability analysis. Letter grading.


267A. Probabilistic Programming and Relational Learning. (4) Lecture, four hours; outside study, eight hours. Introduction to computational models of probability and statistical models of relational data. Study of relational graphical models and Markov logic networks, as well as various probabilistic programming languages. Covers their syntax and semantics, probabilistic programming, and learning of structure learning algorithms, and theoretical properties of representation and inference. Expressive statistical modeling, how to formalize and reason about complex systems and environments, and efficient inference and learning in machine learning models. Survey of key applications in natural language processing, graph mining, computer vision, and computational biology. Letter grading.


268S. Seminar: Computational Neuroscience. (2) Seminar, two hours; outside study, four hours. Designed for students undertaking thesis research. Discussion of current and emerging research in computational neuroscience. Neural networks and connectionism as paradigm for parallel and concurrent computation in application to problems of perception, vision, problem solving, learning, and robotics. May be repeated for credit. S/U grading.

269. Seminar: Current Topics in Artificial Intelligence. (4) Seminar, to be arranged. Review of current literature in artificial intelligence in which instructor has developed special proficiency as consequence of research interests. Students report on selected topics. May be repeated for credit with topic change. Letter grading.

274C. Computer Animation. (4) Lecture, 26 hours; discussion, two hours; outside study, six hours. Enforced requisite: course 174A. Introduction to computer animation. Emphasizes the use of computer graphics in animation, focusing on the software techniques that generate visually appealing animations. Topics include modeling, rendering, and animation. Assignments involve coding in standard computer graphics packages and developing original software. Letter grading.

275. Artificial Life for Computer Graphics and Vision. (4) Lecture, four hours; outside study, eight hours. Enforced requisite: course 174A. Recommended: course 161. Investigation of important role that concepts from artificial life, emerging discipline that spans computational and biological sciences, can play in the construction of advanced computer graphics and vision models for virtual reality, animation, interactive games, active vision, visual sensor networks, medical image analysis, etc. Focus on comprehensive models that can realistically simulate variety of living things (plants and animals) from lower animals to humans. Exposure to effective computational modeling of natural phenomena of life and their incorporation into computer vision and graphics research. Lecture and discussion. Specific topics include modeling plants using L-systems, biomechanical simulation and control, behavioral animation, reinforcement and neural-network learning of locomotion, cognitive mapping and artificial agents, animals and humans, human facial animation, and artificial evolution. Letter grading.

276A. Pattern Recognition and Machine Learning. (4) (Same as Statistics M231A.) Lecture, three hours; outside study, four hours. Fundamental concepts, theories, and algorithms for pattern recognition and machine learning that are used in computer vision, image processing, speech processing, natural language processing, and computational biology. Topics include Bayesian decision theory, parametric and nonparametric learning, clustering, complexity (VC-dimension), MCL, AIC, PCA, ICA/TTA, and EM. Topics from classification, regression, clustering, and simulation. S/U or letter grading.

280A-280ZZ. Algorithms. (4) (Each) Lecture, four hours; outside study, eight hours. Requisite: course 181. Additional requisites for each offering announced in advance by department. Selections from families of formal languages, grammars, machines, operators; pushdown automata, context-free languages and their generalizations, parsing, context-free languages and their generalizations, parsing, context-free languages and their generalizations, parsing. Topics from coding theory: Hamming codes, cyclic codes, Gilbert/Varshamov bounds, Shannon theorem. S/U or letter grading.

284A-284ZZ. Topics in Automata and Languages. (4 each) Lecture, four hours; outside study, eight hours. Requisite: course 181. Additional requisites for each offering announced in advance by department. Selections from families of formal languages, grammars, machines, operators; pushdown automata, context-free languages and their generalizations, parsing, context-free languages and their generalizations, parsing. Topics from coding theory: Hamming codes, cyclic codes, Gilbert/Varshamov bounds, Shannon theorem. S/U or letter grading.

285. Seminar: Current Topics in Artificial Intelligence. (4) Seminar, to be arranged. Review of current literature in artificial intelligence in which instructor has developed special proficiency as consequence of research interests. Students report on selected topics. May be repeated for credit with topic change. Letter grading.

CM276. Cryptographic Protocols. (4) (Same as Mathematics M203B.) Lecture, four hours; outside study, eight hours. Requisite: course M283A. Consideration of advanced cryptographic protocol design and analysis. Topics include interactive zero-knowledge proofs; zero-knowledge arguments; commitment schemes, secret sharing, and IP=PSPACE proof, stronger notions of security for public-key encryption, including chosen-ciphertext security; secure multiparty computation; dealing with dynamic adversary; nonmalleability and composability of secure protocols; software protection; threshold cryptography; identity-based cryptography; private information retrieval; protection against man-in-the-middle attacks; voting protocols; identification protocols; digital cash schemes; lower bounds on use of cryptographic primitives, software obfuscation. May be repeated for credit with topic change. Letter grading.

CM283A-M283B. Topics in Applied Number Theory. (4 each) Lecture, four hours; outside study, eight hours. Requisite: course 174A. Recommended: course 159. May be repeated for credit. Selected sections: Context-Free Languages and Context-Free Grammars. Enforced requisite: course 174A. Recommented: course 159. Introduction to theory and practice of automated reasoning, design, and simulation of Biological Systems. (5) (Same as Bioengineering CM286.) Lecture, four hours; laboratory, three hours; outside study, eight hours. Dynamic systems and modeling of biological networks. Methods for modeling biological and computational models and systems at multiple levels of organization. Control system, multicompartmental, predator-prey, pharmacokinetic (PK), pharmacodynamic (PD) models; other structural modeling methods applied to life sciences problems at molecular (biochemical pathways/networks), organ, and organismic levels. Both theory and data-driven modeling, with focus on translating modeling goals and data into mathematical models and implementing them for simulation and analysis. Basics of numerical simulation algorithms, with modeling software exercises in C and PC laboratory assignments. Concurrently scheduled with course CM116E. Letter grading.

CM287. Research Communication in Computational and Systems Biology. (4) (Same as Bioengineering CM287.) Lecture, four hours; outside study, eight hours. Requisite: course M182 or CM286 or Computational and Systems Biology M150. Closely directed, interactive, and real research experience in advanced undergraduate or graduate student laboratories. Direction on how to focus on topics of current interest in scientific community, appropriate to student interests and capabilities. Critiques of oral presentations and written progress reports to proceed with search for research results. Major emphasis on effective research reporting, both oral and written. Concurrently scheduled with course CM187. Letter grading.

CM288. Seminar: Theoretical Computer Science. (2) Seminar, two hours; outside study, six hours. Requisites: courses 280A, 281A. Intended for students undertaking thesis research. Discussion of advanced
topics and current research in such areas as algorithms and complexity models for parallel and concurrent computation, and formal language and automata theory. May be repeated for credit. S/U grading.

289A-289ZZ. Current Topics in Computer Theory. (2 to 12 each) Lecture, four hours; outside study, eight hours. Review of current literature in area of computer theory in which instructor has developed special proficiency as consequence of research interests. Students report on selected topics. Letter grading.

289CO. Complexity Theory. (4) Lecture; four hours; outside study, eight hours. Diagonalization, polynomial-time hierarchy, PCP theorem, randomness and derandomization, circuit complexity, attempts and limitations to proving P does not equal NP, average-case complexity, one-way functions, hardness amplification, problem sets and presentation of previous and original research related to course topics. Letter grading.

289OA. Online Algorithms. (4) Lecture, four hours; outside study, eight hours. Requisite: course 180. Introduction to decision making under uncertainty and computation of current research in online algorithms for problems arising in many areas, such as data and memory management, searching and navigating in unknown terrains, and server systems. Letter grading.

289RA. Randomized Algorithms. (4) Lecture; four hours; outside study, eight hours. Basic concepts and design techniques for randomized algorithms, such as probability theory, Markov chains, random walks, and probabilistic method. Applications to randomized algorithms in data structures, graph theory, computational geometry, number theory, and parallel and distributed systems. Letter grading.

M296A. Advanced Modeling Methodology for Dynamic Biomedical Systems. (4) Same as Bioengineering M296A and Medicine M270C.) Lecture, four hours; outside study, eight hours. Requisite: Electrical Engineering 141 or 142 or Mathematics 115A or Mechanical and Aerospace Engineering 171A. Development of dynamic systems modeling methodology for physiological, biomedical, pharmacological, chemical, and related systems. Control system, multicompartamental, noncompartmental, and input/output models. Linear and nonlinear. Emphasis on model applications, limitations, and relevance to biomedical sciences and other limited data environments. Problem solving in PC laboratory. Letter grading.

M296B. Optimal Parameter Estimation and Experiment Design for Biomedical Systems. (4) (Same as Bioengineering M296B, Biomatics M270, and Medicine M270E.) Lecture, four hours; outside study, eight hours. Requisite: course CM286E or M296A or Biomatics 220. Estimation methodology and model parameter estimation algorithms for fitting dynamic system models to biomedical data. Model building and model testing techniques. Methodology and algorithms for designing optimal experiments for developing and quantifying models, with special focus on optimal sampling schedules for kinetic models. Exploration of PC software for model building and optimal experiment design via applications in Physiology and Pharmacology. Letter grading.

M296C. Advanced Topics and Research in Biomedical Systems Modeling and Computing. (4) (Same as Bioengineering M296C and Medicine M270E.) Lecture, four hours; outside study, eight hours. Requisite: course CM286E or M296A. Research techniques and experience on special topics involving models, modeling methods, and model/computing in biological and medical sciences. Review and critique of literature. Current research, problem solving and formulation. Approaches to solutions. Individual MS- and PhD-level project training. Letter grading.

M296D. Introduction to Computational Cardiology. (4) (Same as Bioengineering M296D.) Lecture, four hours; outside study, eight hours. Requisite: course CM186. Introduction to mathematical modeling and computer simulation of cardiac electrophysiological process. Ionic models of action potential (AP). Theory of AP propagation in one-dimensional and two-dimensional cardiac tissue. Simulation on sequential and parallel supercomputers, choice of numerical algorithms, to optimize accuracy and to provide computational stability. Letter grading.

298. Research Seminar: Computer Science. (2 to 4) Seminar, two to four hours; outside study, four to eight hours. Designed for graduate computer science students. Discussion of advanced topics and current research in algorithmic processes that describe and transform information; theory, analysis, design, efficiency, implementation, and application. May be repeated for credit. S/U grading.

375. Teaching Apprentice Practicum. (1 to 4) Seminar, to be arranged. Preparation: apprentice personnel employment as teaching assistant, associate, or fellow. Teaching apprenticeship under active guidance and supervision of regular faculty member responsible for curriculum and instruction at UCLA. May be repeated for credit. S/U grading.

495. Research Seminar: Computer Science. (2 to 4) Seminar, two hours; outside study, four hours. Requisite: course 180. Introduction to mathematical modeling and research in the conservation of material culture. It supports discovery and innovation through research that transcends the boundaries of traditional disciplines. It uniquely trains cultural property professionals in the best practices and methods of cultural heritage conservation through various pedagogical approaches including, but not limited to, core teaching and learning, independent research, and laboratory experience in museums and in the field. Finally, it positively impacts the community by engaging with a more informed public that would seek to protect cultural heritage from imminent threats.

The program offers two degree options: a practice-focused three-year MA degree in Conservation of Archaeological and Ethnographic Materials and a research-focused PhD degree in Conservation of Material Culture. Though the two degrees share a scholarly approach to the discipline and strong commitment to the advancement of the conservation profession, they provide distinctive competencies, preparing students for different careers in the cultural heritage section and beyond.

The aim of the program is to train the next generation of multidisciplinary researchers, heritage prac-
Conservation of Archaeological and Ethnographic Materials

Lower-Division Courses

19. Fiat Lux Freshman Seminars. (1 Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in the areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

99. Student Research Program. (1 to 2 Tutorial (supervised research or other scholarly work), three hours per week per unit. Entry-level research for lower-division students under guidance of faculty mentor. Students must be in good academic standing and enrolled in minimum of 12 units (excluding this course). Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP grading.

Upper-Division Courses

C120. Field Methods in Archaeological Conservation: Readiness, Response, and Recovery. (4 Laboratory, four hours. Overview of risks (direct and indirect) and materials vulnerability of in situ cultural heritage and movable materials. Students will develop intervention and recovery plans for emergency situations (rescue excavations, disasters, conflicts), with emphasis on readiness, first aid response, and recovery. Readiness focuses on preparedness and preventive treatment, including recommendations for damage protection of cultural heritage and prevention of decay and loss. Introduction to emergency response operations, emergency temporary in situ preservation and field laboratory operations (using locally available materials), and training. Recovery is based on documentation, lifting methods, handling, transportation, and storage. Emphasis on finding practical solutions to prevent and mitigate damage and to recover and safeguard archaeological artifacts. Concurrently scheduled with course C220. Letter grading.

C142. Managing Collections for Museums, Libraries, and Archives. (4 Lecture, two hours; activity, two hours. How conservators work together with curators, registrars, librarians, and archivists to permit collections to be both accessed and preserved. Concurrently scheduled with course C242. Letter grading.

Graduate Courses


M210L. Cultural Materials Science Laboratory: Technical Study. (4) (Same as Materials Science M213L) Laboratory, four hours. Requirements: course M215 (or M216) and one course from 260 through M264. Corequisites: course M210 (or Materials Science C112 or CM12). Research-based laboratory training in object-based problem-solving approach in conservation materials science. Experimental techniques, characterization, and analysis of archaeological and ethnographic materials (using materials acquisitonen and reverse engineering processes) to determine technological features, defects, and products of alteration. Hands-on experience with noninvasive imaging and spectroscopic techniques, sampling and sample preparation methods, analysis of microsamples. Letter grading.

C121. Science Fundamentals in Conservation of Materials. (4) Lecture, three hours. Introduction to important scientific parameters in conservation of materials that are of great importance for both fundamental science and practical applications. Students gain better understanding of intrinsic properties of materials, mechanisms of deterioration, and conservation techniques. General chemistry (atomic structure bonding, etc.), fluid transfer in porous materials, diffusion, interfaces, surface tension, and other topics. Emphasis on dissolution and crystallization, mechanical properties (proper ties/characterization), phase transformations (glass, metals, polymers). Letter grading.

M215. Cultural Materials Science I: Analytical Imaging Methods in Conservation of Materials. (4) (Formerly numbered 215.) (Same as Materials Science M2113.) Lecture, two hours; laboratory, two hours. Basic and advanced techniques on digital photography, computer-aided recording tools, and scientific imaging to determine and document condition (defects) and technological features of archaeological and ethnographic materials. Development of basic theoretical knowledge, including photography, toner, and toner science and practical application methods of traditional organic and inorganic systems and introduction of novel technology based on biomineralization processes and nanotechnology. Letter grading.

C220. Field Methods in Archaeological Conservation: Readiness, Response, and Recovery. (4) Laboratory, four hours. Overview of risks (direct and indirect) and materials vulnerability of in situ cultural heritage and movable archaeological materials in emergency situations (rescue excavations, disasters, conflicts), with emphasis on readiness, first aid response, and recovery. Readiness focuses on preparedness and preventive treatment, including recommendations for damage protection of cultural heritage and prevention of decay and loss. Introduction to emergency response operations, emergency temporary in situ preservation and field laboratory operations (using locally available materials), and training. Recovery is based on documentation, lifting methods, handling, transportation, and storage. Emphasis on finding practical solutions to prevent and mitigate damage and to recover and safeguard archaeological artifacts. Concurrently scheduled with course C120. Letter grading.

211. Principles, Practice, and Ethics in Conservation. (4) Lecture, three hours; activity, one hour. Introduction to preservation of cultural heritage materials, including what should be preserved and why, as well as who should be involved in decision-making process. Use of several examples of issues and problems involved in preservation of works of art. L.A. Murals to Sistine Chapel, from ancient wall paintings to Statue of Liberty. Discussion of issues of preservation and restoration of these cultural heritage materials both in museum and outdoor environments. Materials and techniques used to make cultural heritage materials, in relation to preservation efforts needed to prevent decay and loss. Introduction to examples of conservation issues related to sites, buildings, monuments, and collections. Ethical and contextual aspects with reference to changing values in con-

Graduate Study

Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Division website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Graduate Degrees

The Conservation of Archaeological and Ethnographic Materials Program offers a Master of Arts (MA) degree in Conservation of Archaeological and Ethnographic Materials, and a Master of Science (MS) and Doctor of Philosophy (PhD) degrees in Conservation of Material Culture.

326 / Conservation of Archaeological and Ethnographic Materials
222. Conservation and Ethnography. (4) Laboratory, four hours. Designed for graduate conservation students. Introduction to work as conservators of objects, including ethnographic objects. Practical work on metallic artifacts made of iron, steel, cast iron, gold, copper, and other materials. Letter grading.

224. Issues in Preservation and Management of Archaeological and Cultural Sites. (4) Seminar, three hours. Designed to offer practical model of preservation of cultural sites and objects. Course reflects real case-study scenarios. Adaptive management planning following iterative processes for sustainable heritage preservation addressing threats and challenges such as climate change and global warming, conflicts, and neglect. Consideration of significance and value of heritage sites and role of stakeholders. Investigation of methods of evaluation of physical condition and development of risk assessments to address physical risks in milieu of site preservation management, including visitors' organization, urban development, socioeconomic growth, and tourist development. Letter grading.


M240. Environmental Protection of Collections for Museums, Libraries, and Archives. (4) [Same as Information Studies M238] Lab, two hours; laboratory, two hours. Requisite: Information Studies 432. Required of graduate conservation students. Review of environmental and biological aspects of deterioration, including light, temperature, relative humidity, pollution, insects, and fungi. Emphasis on monitoring and identifying agents and understanding of materials sensitivities, along with protective measures for collections. Letter grading.


242. Conservation Laboratory: Plants, Librar- ries, and Archives. (4) Lecture, two hours; activity, two hours. Designed for graduate conservation students. How conservators work together with curators, collection managers, mount makers, designers, and registrars to permit collections to be both accessed and preserved. Concurrently scheduled with course C142. Letter grading.

M250. Conservation Laboratory: Rock, Art, Wall Paintings, and Murals. (4) [Same as Materials Science M215] Laboratory, four hours. Requisites: courses M210 (or M216 or Materials Science C112), M210L, M264. Recommended: course M215. Research-based laboratory on conservation of rock art, wall paintings (archaeological and modern compositions on ceramics), mosaics, and decorated architectural surfaces. Experimental techniques and analysis of materials (including non-destructive and reverse engineering processes) for characterization of technology, constituent materials, and alteration products; development of conservation treatment proposals, testing of conservation products, and methods and conservation treatment. Letter grading.


260. Structure, Properties, and Deterioration of Materials: Ceramics, Glass, Glazes. (2) Lecture, three hours. General introduction to different types of ancient ceramic and glass materials. Relationship between composition (chemistry), structure (crystals, molecular arrangement, and microstructure), and properties of ceramics, glass, and glasses. Nature of fire and faience deterioration explained using basic concepts from physics and chemistry. Chemical, optical, and structural properties of phenomena, defects, and products of alteration of ceramics and vitreous artifacts. Hands-on examination of variety of samples and artifacts. Letter grading.

261. Structure, Properties, and Deterioration of Materials: Stone, Adobe. (2) Lecture, three hours. Introduction to different types of ancient and ethnographic stones. Ancient and modern objects. Relationship between composition (chemistry), structure (crystals, molecular arrangement, and microstructure), and properties of stones. Relationship between composition (chemistry), structure (crystals, molecular arrangement, and microstructure), and properties of metals explained using basic concepts from physics and chemistry. Chemical, optical, and structural properties. Deterioration phenomena, defects, and products of alteration of metals. Letter grading.

262. Structure, Properties, and Deterioration of Materials: Organics II. (2) Lecture, one hour. General introduction to different types of organic materials. Relationship between composition (chemistry), structure (crystals, molecular arrangement, and microstructure), and properties of organics. Letter grading.

264. Structure, Properties, and Deterioration of Materials: Organics I. (2) Lecture, one hour; laboratory, one hour. General introduction to different types of organic materials. Relationship between composition (chemistry), structure (crystals, molecular arrangement, and microstructure), and properties of organics. Letter grading.

M298. Special Topics in Conservation. (2 or 4) Lecture, three hours; laboratory, one hour. Special topics on theoretical and practical subjects in conservation such as focused materials studies, new conservation approaches, advanced treatments, or current special work by core program faculty or visiting scholars. If appropriate, field trips may be arranged. May be repeated for credit with topic or instructor change. Letter grading.

498. Conservation Program Internship. (6 or 12) Fieldwork, 20 or 40 hours. Open only to Conservation MA program graduate students who have completed first year of conservation program coursework. Supervised conservation-related professional and research-based training in field through participation in field projects (i.e., archaeological excavation, site management, and on-site forensic analysis). Includes personal site supervision, as well as in museum, library, archive, and collections conservation and science departments, regional and national laboratories, or at other similar venues. All intern placements must be arranged by program and developed in collaboration between student, faculty members, and host institution/agency. S/U grading.

599. Directed Individual Studies. (2 to 6) Tutorial, seven hours. Limited to graduate conservation students. Individual guided studies that may include conservation research and/or surveys or treatment projects carried out at Villa laboratories or at local collection or analytical facility. To be arranged with program faculty members, and supervision may be shared between faculty members and outside specialists. Letter grading.

599. Preparation for PhD Qualifying Examination. (2 to 12) Tutorial, to be arranged. May not be applied toward PhD course requirement. May be repeated for credit. S/U grading.

599. MA Thesis Preparation. (2 to 12) Tutorial, two hours. Enforced requisite: one hour. Development of research paper on conservation topic or treatment-based investigation that can be theoretical in scope or practically oriented. Letter grading.

599. PhD Dissertation and Preparation. (2 to 12) Tutorial, to be arranged. May not be applied toward PhD course requirement. May be repeated for credit. S/U grading.
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Dentistry
310-825-9789
Paul H. Krebsbach, DDS, PhD, Dean

Scope and Objectives
The UCLA School of Dentistry offers the following courses for general campus students. Dentistry 199 and 199H are individual special studies courses for UCLA undergraduates with definitive research interests and abilities applicable to dentistry. The subject areas include oral biology, clinical research, and dental health policy. Interested students should contact the associate dean of research at 310-825-6401 to obtain the names and areas of interest of participating School of Dentistry faculty members.

Dentistry
Lower-Division Courses
19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.
99. Student Research Program. (1 to 2) Tutorial (supervised research or other scholarly work), three hours per week per unit. Entry-level research for lower-division students under guidance of faculty mentor. Students must be in good academic standing and enrolled in minimum of 12 units (excluding this course). Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP grading.

Upper-Division Courses
199. Individual Special Studies. (2 to 8) Tutorial, to be arranged. Studies in dentistry and related subject areas appropriate for training of particular students, with required reading assignments or laboratory work leading to final oral or written examination. May be repeated for maximum of 16 units. P/NP or letter grading.
199H. Individual Special Studies (Honors). (2 to 8) Tutorial, to be arranged. Studies in dentistry and related subject areas appropriate for training of particular students, with required paper submitted at end of course in addition to final examination (paper to be of publication quality as judged by course mentor). May be taken for maximum of 8 units. P/NP or letter grading.

Graduate Courses
441C. Introduction to Healthcare. (2) Lecture, two hours. Description and analysis of American dental care system from historical, ethical, and legal perspectives. Assessment of how dentistry fits within general provision of healthcare services in America, with comparisons to dental care provisions in other countries. S/U grading.

DESIGN | MEDIA ARTS
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Associate Professors
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Ramesh Srinivasan, PhD

Academic Administrator
Chandler McWilliams, MFA, MA

Scope and Objectives
The Department of Design/Media Arts offers the Bachelor of Arts and Master of Fine Arts degrees. The BA degree focuses on visual communication design, with emphasis on digital media. The MFA degree focuses on media arts. These uniquely challenging programs invite students to balance aesthetic sensibility with logical reasoning, formal theories with practical application, and contemporary thought with historical perspective.

The undergraduate program begins with the study of basic design elements and processes: form, color, drawing, letterforms and typography, motion, and interactivity. Historical perspectives and social issues are also introduced. At the upper-division level, studio courses explore current uses of interactive media and new directions in visual communication design, including the study of time and motion, as well as virtual form and space in computer-generated environments. Through a balance of courses in theory, criticism, and practice, students develop an understanding of design principles. Most courses are taught as studios of no more than 22 students, which encourages individual growth and fosters a sense of community within the department.

The two-year Master of Fine Arts (MFA) program fosters mature, professional-quality work utilizing the most current technologies in the field of media arts. The program focuses on developing an individual thesis project that incorporates in-depth research and theoretical exploration of a topic, culminating in a final exhibition of work.

Facilities and equipment in the department enable students to create work in two, three, and four dimensions. They expand opportunities for students to develop interactive media applications in a networked environment and advanced computer graphics. The department equipment includes computer laboratories with high-end PC and Macintosh computers and relevant software for the creation of works for print, web, video, and other media, a fabrication laboratory with equipment ranging from table saws to three-dimensional printers to a CNC machine to create physical objects combined with electronics, and a print laboratory with high-quality printers.

The Department of Design/Media Arts reserves the right to hold for exhibition purposes examples of any work done in classes and to retain for the permanent collection of its galleries such examples as may be selected.

Undergraduate Study
The Design/Media Arts major is a designated capstone major. Students are required to complete an advanced project of their own that entails full engagement with the design process. Through their capstone work, students demonstrate their capacities for research, ideation/concept development, creative and design direction, communication strategy, design, production/fabrication, and critical analysis. Capstone courses focus on career choice, and final projects are showcased at the spring senior show.

Design/Media Arts BA

Capstone Major

Learning Outcomes
The Design/Media Arts major has the following learning outcomes:

• Deep understanding of the field through immersion
• Exploration and development of ideas through listening to and observation of patterns
• Definition of an event and its surroundings and mise-en-scène, and the ethos of the student’s idea
• Development of the specifics of a design
• Conceptualization of how an idea reaches its audience, how and when it launches, and how it stays relevant and vibrant
• Designed specifics of each element of the visual vocabulary—from graphic elements to photography, videography, and illustrations—including
Graduate Study

Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Division website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Graduate Degree

The Department of Design | Media Arts offers the Master of Fine Arts (MFA) degree in Design | Media Arts.

Design | Media Arts

Lower-Division Courses

1. Graphic Design. (2) Studio, 30 hours. Limited to high school students. Basic and advanced photography skills using digital cameras. Alteration/manipulation of photos using techniques from latest version of Adobe Photoshop. Uploading of images on Web or in print. Production of digital and print portfolio of student work. Field trips to surrounding West Los Angeles locales to shoot photos. May be repeated for credit without limitation. Offered only as part of Summer Institute. P/NP grading.

2. Web Design. (2) Studio, 30 hours. Limited to high school students. How Web design works: basic hand coding and creation of personalized homepages with Macromedia Director and Flash software. Photograph scanning and manipulation of images in Adobe Photoshop to incorporate student Web designs. Critique of various Web pages to analyze successful use of Web as tool for working with colors. Combination of written and oral elements and as texture in layout. Emphasis on grid and proportional relationships as foundation for creativity; original application of form, scale, spatial orientation, and cultural influences. Preparation for major courses. Open to nonmajors with consent of instructor. Critical examination of design practices and trends. P/NP or letter grading.

3. Game Design. (4) Studio, 30 hours. Limited to high school students. Development of fundamental skills to create games and game art that express personal and subjective approach to game making. Artistic vision combined with technological expertise to teach students fundamentals of designing games, building game worlds, creating game characters, and making playable games for mobile platforms. Use of current software and technology, including Maya and Uni- t3D. Creation of game projects that students exhibit and can use for college applications. Offered only as part of UCLA Game Lab Summer Institute. P/NP grading.

4. Audio Video Design. (2) Studio, 30 hours. Limited to high school students. Creation of storyboard for short documentary, commercial, or music video. Students shoot and edit their own work by learning fundamentals of preproduction and postproduction using latest digital video systems. Adobe Premiere and After Effects, to create their work. Burning of DVD of finished production. Visits from professional video producer to help guide students in creating their own videos. May be repeated for credit without limitation. Offered only as part of Summer Institute. P/NP grading.

5. Introduction to Design | Media Arts. (4) Studio, 40 hours. Limited to high school students. Two-week summer course designed to meet need of students interested in exploring their creative potential within fields of design media arts, with focus on concepts of narrative and storytelling. Introduction to and exploration of variety of media such as graphic, web, game, and video design with goal of combining and integrating these media to express and realize their narrative projects. Students work with most current software and technology in each discipline as they develop diverse skill sets while cultivating conceptual capabilities around storytelling project, and with experienced instructors and professionals in field to develop projects utilizing this comprehensive and integrative approach. Culminates in portfolios that may be used for college applications. Possible field trips. May be repeated for credit without limitation. Offered only as part of Summer Institute.

6. Art | Science and Technology Studio/Laboratory. (4) Studio/laboratory, 40 hours. Limited to high school students. Two-week summer course, including lectures, required screenings, laboratory visits, field trips, and an outside study component. Exploration of creative aspects of scientific research and innovation to gain broad understanding of impact of science on contemporary art and popular culture, with focus on new sciences of biotechnology and nanotechnology. Development of proposals and ideas that could serve as prototypes for either art projects or scientific research study. P/NP grading.

7. Media Histories. (5) Lecture, three hours; outside study, 12 hours. Synthetic overview of optical media and aesthetic movements covering past two centuries: photography and industrialization/Romanticism (1850 to 1900), cinema and modernism (1900 to 1950), television and postmodernism (1950 to 2000), and digital media and unimodernism (2000 to 2050). How such movements can inform generative work and how understanding these media becomes essential in emerging era of digital humanities. P/NP or letter grading.

8. Art, Science, and Technology. (5) Lecture, three hours; discussion, one hour; outside study, 11 hours. Exploration of scientific, technological, and cultural innovations, technology-driven art inspired by science, and art/science collaborative projects. Introduction to vast array of cutting-edge research taking place on campus; scientific guest lecturers. Emphasis on art projects that use technology and respond to new scientific concepts. P/NP or letter grading.

9. Design Culture. (5) Lecture, three hours; outside study, 12 hours, total of 15 hours. Understanding of design process, with emphasis on development of virtual language; study of historic, scientific, technological, economic, and cultural factors influencing design in physical environment. P/NP or letter grading.

10. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise. Designed to introduce students to intellectual processes of UCLA faculty. P/NP grading.

11. Drawing and Color. (4) Studio, six hours; outside study, six hours. For drawing, exploration of relation- ship between concept and image creation while fos- tering development of skills in viewing, analyzing, and expressing ideas and forms. For color, exploration of development of fundamental skills in mixing and applying pigments with brush on watercolor paper, as well as use of computer as tool for visual expression. Combination of painting and software to be predominant way of ex- ploring and presenting ideas regarding color. P/NP or letter grading.

12. Drawing, Color, and Design. (4) Studio, six hours; outside study, six hours. For drawing, exploration of relationship between concept and image creation while fostering development of skills in viewing, analyzing, and expressing ideas and forms. For color, exploration of development of fundamental skills in mixing and applying pigments with brush on watercolor paper, as well as use of computer as tool for visual expression. Combination of painting and software to be predominant way of exploring and presenting ideas regarding color. P/NP or letter grading.

13. Video. (5) Studio, six hours; outside study, nine hours. Preparation: completion of preparation for major courses. Requisite: course 101 or 104. Use of video technology (video systems, cameras, displays, editing, and storage) to integrate image, sound, time,
and medium. Emphasis on expression, continuity, and sequential patterns for video communication. P/NP or letter grading.

154. Word + Image. (5) Studio, six hours; outside study, nine hours. Preparation: completion of prepara-
tion for major courses. Requisites: courses 24, 28, 25, and 101 or concurrent, or faculty permission. Letter grading.

156. Three-Dimensional Modeling and Motion. (5) Studio, six hours; outside study, nine hours. Preparation: completion of preparation for major courses. Requisites: courses 101 or 104. Introduction to theories of three-di-
dimensional space, formal design, and lighting, using three-dimensional visualization and video tools. Tools originally designed for motion to be used to construct form. Use of aspects of time, such as speed and dura-
tion, to contemplate form and interaction. Exploration of virtual versus real form. Letter grading.

157. Game Design. (5) Studio, six hours; outside study, nine hours. Preparation: completion of prepara-
tion for major courses. Requisites: courses 24, 28, and 101 or 104. Introduction to game design, with focus on developing conceptual and practical skills that form basis for understanding and designing games. Development of four playful game projects that explore various aspects of game design: rule de-
sign, game balance, multiplayer strategy, complexity, randomization, and non-linear interactions. Exploration of conceptual space enabled by electronic media through exercises, presentations. Topics announced in advance. May be repeated for maximum of 15 units. Letter grading.

160. Special Topics in Design | Media Arts. (5) Studio, six hours; outside study, nine hours. Completion of preparation for major courses required. Requisites: course 101 or 104. Selected topics in design and media arts explored through variety of approaches that may include proj-
ects, readings, discussion, research papers, and oral presentations. Topics announced in advance. May be repeated for maximum of 15 units. Letter grading.

163. Narrative. (5) Lecture, six hours; outside study, nine hours. Preparation: completion of preparation for major courses. Requisite: course 101 or 104. Provides a discourse for art that parallels world of 20th-century visual language. Study of threads that allow viewer to connect story of one art form to an-
other in richer context. Letter grading.

171. Topics in Experiment and Games. (5) Studio, six hours; outside study, nine hours. Completion of preparation for major and upper-division core courses required. Requisites: courses 101 or 104, 157. Se-
lected topics in interactive media and games explored through variety of approaches that may include proj-
ects, readings, discussion, research papers, and oral presentations. Topics announced in advance. May be repeated for maximum of 15 units. Letter grading.

172. Topics in Video and Animation. (5) Studio, six hours; outside study, nine hours. Completion of prepa-
rating for major and upper-division core courses re-
quired. Requisites: courses 101 and 104, or 153 or 156. Selected topics in video and animation explored through variety of approaches that may include proj-
ects, readings, discussion, research papers, and oral presentations. Topics announced in advance. May be repeated for maximum of 15 units. Letter grading.

173. Topics in Visual Communication and Image. (5) Studio, six hours; outside study, nine hours. Com-
pilation of preparation for major and upper-division core courses required. Requisites: courses 24, 28, 101 or 104, 154. Selected topics in visual communication and image explored through variety of approaches that may include projects, readings, discussion, research, re-
search papers, and oral presentations. Topics announ-
ced in advance. May be repeated for maximum of 15 units. Letter grading.

179A-159B-159C. Capstone Senior Project. (5-5-5) Studio, six hours; outside study, nine hours. Com-
pletion of preparation for major courses. Limited to seniors. Focus on creating final project that can be showcased at Senior Show. Students can take two different courses in different terms or the same course twice in different terms. Total units for courses 159A, 159B, and 159C may not exceed 10 units, with maximum of 5 units per term. Letter grading.159A, Inte-
159B, and 159C. letter grading.

180. Honors Research in Design | Media Arts. (4 to 8) Tutorial, four hours; outside study, four hours. Sup-
ervision of individual research in design. Students meet on regular basis with a faculty mentor. Culminating paper or project required. P/NP or letter grading.

180A-159B-159C. Community or Corporate Internships in Design | Media Arts. (2-4) Tutorial, six and 12 hours. Limited to juniors/seniors. Internship in super-
vised setting in community or corporate setting related to design. Students meet on regular basis with in-
structor and provide periodic reports of their experi-
ence. Courses 195A and 159B may be repeated for combined maximum of 15 units. Letter grading.

183. Introduction to Art | Science. (5) Seminar, three hours; outside study, six hours. Preparation: completion of honors thesis or comprehensive re-
search project under direct supervision of faculty member. May be repeated once for credit. Individual contract required. Letter grading.

189A-159B-159C. Advanced Honors Seminars. (1) Seminar, one hour; outside study, six hours. Limited to majors. Development of one-to-one interaction between students and faculty members. May be repeated for credit. S/U grading.

193A-159B-159C. Directed Research in Design | Media Arts. (2–4) Tutorial, two hours; outside study, four hours. Limited to departmental faculty members. Preparation: apprentice per-
sonnel employment as teaching assistant, associate, or fellow. Teaching apprenticeship under active guid-
eance and supervision of regular faculty member re-
sponsible for curriculum and instruction at UCLA. May be repeated for credit. S/U grading.

200. Design | Media Arts Faculty Seminar. (2) Seminar, two hours; outside study, six hours. Limited to design faculty. Orientation to departmental faculty members and their creative work and research to help students orient them to department and University policies and resources. May not be applied toward degree require-
m ents. S/U grading.

205. Directed Individual Study or Research. (1 to 8) Tutorial, one to eight hours; outside study, four hours or fellow. Teaching apprenticeship under active guid-
eance and supervision of regular faculty member re-
sponsible for curriculum and instruction at UCLA. May be repeated for credit. S/U grading.

225. Programming Media 1. (3) Studio, three hours; outside study, six hours. Limited to majors. Introduc-
tion to computer programming within context of art and design. Exploration of conceptual space enabled by electronic media through exercises, presentations, discussions, and critiques. Weekly exercise balance encourages and technique to reveal potential of computer as medium and tool. Experience with programming basics includes procedural and object-oriented pro-
gramming, two- and three-dimensional graphics, file I/

252A. Programming Media 2. (3) Studio, three hours; outside study, six hours. Enforced requisite: course 252A. Limited to majors. Exploration of use of programming for virtual and real form. Includes interaction design, microcontroller programming, and building kinetic and interactive physical artworks. May be repeated for credit with consent of advisor. S/U grading.

269. Graduate Seminar. (4) Seminar, four hours. De-
signed for graduate design | media arts students. Survey of critical theories in media art and design. Critical examination of student work by peers, faculty members, and expert guests. May be repeated for credit with consent of adviser. Letter grading.

272. Introduction to Art | Science. (5) Seminar, three hours. For past 50 years artists have increasingly appropriated technological procedures and ideas for use in art. This exploration of exposure to actually collaborating with scientists and even residing and working in science laboratories. History of science in relation to artists’ interpretation of science in art is examined. May be repeated for credit with consent of advisor. S/U grading.

289. Special Topics in Media Arts. (3) Seminar, 90 minutes; seven and one half hours arranged. Exam-
ination of topics relevant to media arts theory and practice, with scheduled meetings to be arranged be-
tween faculty member and student as needed. Topics announced in advance. May be taken for maximum of 15 units. Letter grading.

375. Teaching Apprentice Practicum. (1 to 4) Sem-
inar, to be arranged. Preparation: apprentice per-
sonnel employment as teaching assistant, associate, or fellow. Teaching apprenticeship under active guid-
eance and supervision of regular faculty member re-
sponsible for curriculum and instruction at UCLA. May be repeated for credit. S/U grading.

403. Graduate Critique. (2) Seminar, three hours; out-
side study, three hours. Limited to first- and second-
year departmental graduate students. Students meet with instructor in small classroom setting to exchange ideas through presentation of current projects and re-
search. Instructors critique, discussion facilitated. In-
structors may invite visiting critics to contribute. May be repeated for credit. S/U grading.

404. Graduate Tutorial. (3) Tutorial, three hours; out-
side study, six hours. Limited to first- and second-
year departmental graduate students. Development of body of work while working toward MFA degree, with one-to-one interaction between students and faculty members. May be repeated for credit. Letter grading.

405. Teaching Assistant Training Practicum. (2) Seminar, three hours; outside study, three hours. Forum for first-year teaching assistants for discussion and exploration of teaching pedagogy and classroom mechanics. Problems and solutions are shared. Students meet at college level, as well as role of teaching assis-
tants within department. Designed to help new teaching assistants develop teaching skills and to orient them to department and University policies and resources. May not be applied toward degree require-
m ents. S/U grading.

456. Directed Individual Study or Research. (2 to 8) Tutorial, to be arranged. May be repeated for credit with consent of adviser. S/U or letter grading.

597. Preparation for MFA Comprehensive Exam-
ination. (4 to 8) Tutorial, to be arranged. Designed for second-year MFA students to prepare for comprehen-
sive examination. May be repeated for credit with con-
sent of adviser. S/U grading.
**Digital Humanities**

*Interdisciplinary Minor*

*College of Letters and Science*

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**Digital Humanities**  
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Ashley Sanders Garcia, PhD, Vice Chair

**Faculty Committee**  
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Christopher Johanson, PhD (Classics)  
Christopher M. Kelty, PhD (Anthropology, Information Studies, Society and Genetics)  
Peter B. Lunenfeld, PhD (Design/Media Arts)  
David W. MacFadyen, PhD (Comparative Literature, Musicology)  
Stephen D. Mamber, PhD (Film, Television, and Digital Media)  
Miriam Posner, PhD (Information Studies)  
Todd S. Presner, PhD (Comparative Literature, Germanic Languages)  
Janice L. Reiff, PhD (History, Statistics)  
Ashley Sanders Garcia, PhD (Minor Vice Chair)  
Daniel S. Snelson, PhD (English)  
Francis F. Steen, PhD (Communication)  
Willeke Z. Wendorf, PhD (Near Eastern Languages and Cultures)

**Scope and Objectives**

The Digital Humanities minor is an interdisciplinary minor that studies the foundations and futures of the digital world. Digital humanities interpret the cultural and social impact of the new information age as well as creates and applies new technologies to answer cultural, social, and historical questions, both those traditionally conceived and those enabled by new technologies. The interdisciplinary curriculum draws on faculty members from more than 15 departments, five schools, and three research centers at UCLA. It places project-based learning at the heart of the curriculum, with students working in collaborative teams to realize digital research projects with real-world applications. Students use tools and methodologies such as three-dimensional visualization, data mining, network analysis, and digital mapping to conceptualize and advance research projects. Students have the opportunity to make significant contributions to scholarship in fields ranging from archaeology and architecture to history and literature. By preparing students to be active participants in the design and production of new knowledge, the minor emphasizes the critical thinking skills, creativity, and collaborative methodologies necessary for success in the digital information age.

**Undergraduate Study**

**Digital Humanities Minor**

The Digital Humanities minor is intended to provide students with literacy in creating, interpreting, and applying the technologies of the digital world. It examines the cultural and social impact of new technologies and enables students to harness these technologies to develop their own research projects in a wide range of fields.

To apply for the minor, students must (1) have an overall grade-point average of 2.7 or better and (2) submit an application essay supporting their interest in pursuing the minor and enumerating any digital projects that they have already undertaken. On acceptance to the minor, students are expected to identify an academic area of digital humanities in which they intend to concentrate. Information about the minor is available on the [minor website](#).

To submit an application for the minor, see the website.


**Required Upper-Division Courses** (25 to 28 units): Digital Humanities 101, 150, 198 or 199, and three elective courses selected from Ancient Near East M101C, 125A, M125B (or Architecture and Urban Design M125B), M125C (or Architecture and Urban Design M125C), 162, 165, CM169 (or Anthropology CM101Q), Anthropology M161R (or Chinese M183), Architecture and Urban Design 132, Armenien 153, Art History 145A, 145B, Classics 164, 166B, Design/Media Arts 104, Digital Humanities 151, 195 or 196, English 118A, History 188, Korean 183, 187, Russian 121, 129, Scandinavia 132A, 171, Society and Genetics 131, 175, Spanish 130, 150, 170, Urban Planning 129, 141. Variable topics courses may be taken as topics apply. A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor.

Each minor course must be taken for a letter grade. Successful completion of the minor is indicated on the transcript and diploma.

**Digital Humanities Lower-Division Courses**

19. Fiat Lux Freshman Seminars. (1 Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illustrating many paths of discovery at UCLA. P/NP grading.

30. Los Angeles Tech City: Digital Technologies and Spatial Justice. (5 Lecture, two and one half hours; studio, two hours. Investigation of spatial justice and injustice in multi-ethnic city of Los Angeles through Lens of three thematic technologies that built and transformed Los Angeles into global metropolis: cars and highways, networking technologies culminating in Internet and World Wide Web, and film and broadcast media. Use of innovative forms of investigation and communication, from digital mapping to video-sensing, to integrate interpretative and historical approaches of humanities with material and projective practices of design. Letter grading.

89. Honors Seminars. (1 Seminar, three hours. Limited to 20 students. Designed as adjunct to lower-division lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

89HC. Honors Contracts. (1 Seminar, three hours. Limited to students in College Honors Program. Designed as adjunct to lower-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

99. Student Research Program. (1 to 2 Tutorial (supervised research or other scholarly work), three hours per week per unit. Entry-level research for lower-division students under guidance of faculty mentor. Students must be in good academic standing and enrolled in minimum of 12 units (excluding this course). Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP grading.

**Upper-Division Courses**

101. Introduction to Digital Humanities. (5 Lecture, four hours; discussion, one hour. Foundation course for students in Digital Humanities minor, providing theoretical and conceptual framework for understanding genesis of digital world. Use of contemporary cultural-historical methodology to focus on rise of new media and information technologies in 19th, 20th, and 21st centuries, such as photography, film, radio, television, Internet, and World Wide Web and their impact on how individuals, groups, and cultures experienced their worlds. Letter grading.


140. Coding for Humanities. (4 Seminar, three hours. Requisites: course 101. Introduction to coding, with focus on Python. Study of basic structural elements such as lists, if statements, loops, functions, and classes. Consideration of how to apply these concepts to research in humanities and social sciences, and project-based learning. Students discover how to manage and display data with added impact. Content and goals are guided by freedom to restructure more effectively and freedom of speech. Letter grading.

150. Advanced Topics in Digital Humanities. (4 Seminar, three hours. Requisite: course 101. Introduction to coding. Focus on digital humanities research projects. Students learn to design, code, and deploy digital humanities projects, leveraging new digital technologies and methods. Students use the Python programming language to develop digital humanities tools, and to analyze cultural and social data. Students work in small groups to design and implement digital humanities projects, culminating in a final project and presentation. Letter grading.

151. Advanced Topics in Urban Humanities. (4) Seminar, three hours. Introduction to advanced research topics in urban humanities. Looking at specific subject matters related to notion of spatial equity in context of Los Angeles, exploration of how certain spatial technologies such as geographic information systems (GIS) cartography, mobile telephony, real-time data collection, social media, digital databases, and interactive web platforms can be deployed to research and document urban experience. Familiariz...
tion with digital tools used to study urban issues, from affordable housing to access to public space and employment, to civic participation. Letter grading.

189. Advanced Honors Seminars. (1 Seminar, three hours. Limited to 20 students. Designed as adjunct to undergraduate lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

189HC. Honors Contracts. (1 Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to upper-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

195. Community or Corporate Internships in Digital Humanities. (4) Tutorial, two hours; fieldwork, eight hours. Limited to juniors/seniors. Internship in supervised setting in community agency or business. Participation to be arranged by instructor. Students meet on regular basis with instructor and provide periodic reports of their experience. May be repeated for credit. Individual internship contract with supervising faculty member required. Letter grading.

196. Research Apprenticeship in Digital Humanities. (4) Tutorial, three hours per week per unit. Limited to juniors/seniors. Entry-level research apprenticeship for upper-division students under guidance of faculty mentor. May be repeated for credit. Individual contract required. P/NP grading.


199. Directed Research in Digital Humanities. (2 to 4) Tutorial, one hour. Requisite: course 101. Limited to juniors/seniors. Supervised individual research or investigation under guidance of faculty mentor. Culuminating paper or project required. May be repeated for credit. Individual contract required. Letter grading.

Graduate Courses

201. Introduction to Digital Humanities. (5) Seminar, three hours; laboratory, one hour. Introduction to field of digital humanities. Historical overview of field from its beginnings in late 19th century to present, highlighting major intellectual problems, disciplinary paradigms, and institutional challenges that are posed by digital humanities. Examination of major epistemological, methodological, technological, and institutional challenges posed by digital humanities through number of specific projects that address fundamental problems in creating, interpreting, preserving, and transmitting human cultural record. How digital technologies and tools, ranging from map visualizations and modeling environments to database structures and interface design, are arguments that make certain assumptions about, and even transform, objects of study. Letter grading.

250. Special Topics in Digital Humanities. (4) Seminar, three hours. Enforced requisite: course 201. Introduction to advanced research method or thematic issue in digital humanities, such as digital textual analysis, digital mapping database and visualization technologies, or social media technologies. Acquisition of familiarity with particlular set of technologies by learning practical research methods and theoretical issues to carry out advanced research in this area. Examination of critiques of theoretical underpinnings of such technologies and issues that they raise. May be repeated for credit with topic change. Letter grading.

299. Special Projects in Digital Humanities. (2 to 4) Tutorial, one hour. Enforced requisite: course 201. Limited to and required of graduate students in Digital Humanities Graduate Certificate Program. Supervised research and investigation under guidance of faculty mentor. Culuminating project required. May be repeated for maximum of 12 units. Letter grading.

596. Directed Individual Study or Research. (2 to 12) Tutorial, three hours. To be arranged with faculty member who directs study or research. S/U or letter grading.

Disability Studies

Interdisciplinary Minor
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Helen Deutsch, PhD (English)
Rachel C. Lee, PhD (English, Gender Studies, Society and Genetics)
Victoria E. Marks, BA (World Arts and Cultures/Dance)
Mary J. O’Connor, PhD (Psychiatry and Biobehavioral Sciences)

Scope and Objectives

The Disability Studies minor introduces undergraduate students to the emerging interdisciplinary field of disability studies, offering a new lens for thinking about the body, society, and culture. The field reorients a marginalized phenomenon at the center of our experience, transformation what is often misconceived as an abnormality of daily life into one of its most basic realities. Faculty members from applied fields in the professional schools (e.g., education, law, medicine, nursing, public policy, and urban planning) collaborate with faculty from academic disciplines across the College of Letters and Science and the School of the Arts and Architecture (e.g., anthropology, English, history, linguistics, psychology, and world arts and cultures) to provide a critical framework for questioning and connecting topics related to disability in these established disciplines.

Through a core course, carefully selected electives, a required two-semester internship or research apprenticeship, and a senior capstone project, students in the minor obtain both breadth and depth in their understanding of the concept and practical implications of disability.

Undergraduate Study

Disability Studies Minor

To enter the Disability Studies minor, students must (1) have an overall grade-point average of 2.7 or better and (2) submit an application essay supporting their interest in pursuing the minor. To help plan the internship and course schedule, students are expected to work closely with the minor’s academic advisor. Applications are available on the minor website and must be filed with College Academic Counseling, A316 Murphy Hall. For information and questions, contact the department advisor by e-mail or call 310-206-1667.


Required Upper-Division Internship/Apprenticeship Courses (8 units): Two consecutive terms of internship or research apprenticeship (Disability Studies 195CE or 196) in a community-based agency that provides services or support for persons with disabilities or in an institution or agency at the local, state, or federal level responsible for policy on disability issues or collaboration on a research project focused on an area of disability studies scholarship. Internship credit for students participating in the UC Center Sacramento (UCCS) program or the Center for American Politics and Public Policy (CAPP) program may be substituted by petition and is subject to approval by the faculty committee.

Required Upper-Division Capstone Courses (5 to 6 units): Disability Studies 191 or 198A and 198B or 199A and 199B. Prior to enrolling in any capstone option, students must complete Disability Studies 101 or 101W, two upper-division electives, and at least one term of an internship or apprenticeship.

The capstone experience for the minor requires an integrative final paper or project that incorporates the required curriculum and elective courses. Students complete the capstone experience by enrolling in a senior research seminar (Disability Studies 191) or by enrolling in two-term independent study courses (198A and 198B or 199A and 199B) under the guidance of a faculty sponsor. The faculty sponsor approves the proposed readings as well as the length and scope of the final paper or project based on guidelines developed by the faculty committee for the minor.

A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor.

Each minor course must be taken for a letter grade, and students must have an overall grade-point average of 3.0 or better in the minor. Successful completion of the minor is indicated on the transcript and diploma.

Disability Studies

Lower-Division Courses

10. Intersections of Art History and Disability Studies: Disability in Modern Art. (5) Lecture, four hours. Broad overview of presence of disability and its manifestations through modern art in the 19th and 20th centuries. Introduction of historical development and
fundamental intellectual and ethical issues associated with representation of disability in arts and humanities. Investigation of complex relations between artistic and humanistic expression and this major facet of society and culture. Introduction of new methodology and language to build framework around how disability might fit into discourse of modern art as alternative way of knowing and how disability informs modern art by way of radical aesthetics of representation that challenges sociocultural norms. Consideration of how disability aesthetics informs photography, performance art, outsider art, and curatorial practices. P/NP or letter grading.

19. First-Year Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

89. Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to lower-division lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

89HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Enrolled as adjunct to lower-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be repeated for a maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

99. Student Research Program. (1 to 2) Tutorial (supervised research or other scholarly work), three hours per week per unit, Entry-level research for lower-division students under guidance of faculty mentor. Students must be in good academic standing and enrolled in the University Honors Program or be judged to have the intellectual capacity to pursue undergraduate research. Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP grading.

Upper-Division Courses

101. Perspectives on Disability Studies. (5) Lecture, one hour; discussion, two hours. Enforced requisites: English Composition 3 or English as a Second Language 36. Not open for credit to students with credit for course 101W. Creation of critical framework for understanding concept of disability from sampling of disciplinary perspectives. Critical and productive approaches in disability studies—between disability as lived subjective experience that is both individual and communal, and disability as objective, medical, legal, and sometimes stigmatized category. Students encouraged to make connections between units and to create their own perspectives on disability in field that defines itself by how it changes. Letter grading.

101W. Perspectives on Disability Studies. (5) Lecture, one hour; discussion, two hours. Enforced requisites: English Composition 3 or English as a Second Language 36. Not open for credit to students with credit for course 101W. Creation of critical framework for understanding concept of disability from sampling of disciplinary perspectives. Organized around productive and central tension in disability studies—between disability as lived subjective experience that is both individual and communal, and disability as objective, medical, legal, and sometimes stigmatized category. Students encouraged to make connections between units and to create their own perspectives on disability in field that defines itself by how it changes. Satisfies Writing II requirement. Letter grading.

102. Disability and Violence. (4) Seminar, three hours. Relationship between disability and violence from three angles: (1) review of disproportionate incidence of violence committed against people with disabilities, whether specifically as form of hate crime or based on dependency and/or vulnerability that accompanies some types of disability, (2) study of role of disability in construction of criminal justice system, considera- tions of criminality and violence, and (3) disablism or emergent disability (injuries, illnesses, and impairments created by social inequity) as consequence of interacting forms of racial, gender, sexual, and class subordination, or as result of state or interpersonal violence. Consideration of possible coalition-based strategies for challenging systemic subordination and prospects for improving disability-consciousness and social movements across. P/NP or letter grading.

M103. Studies in Disability Literatures. (5) Same as English M103C. Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3 or English as a Second Language 36. Examination of disability in literature, with specific emphasis on thematic concerns. Topics may include introduction to disability studies; the politics of disability narratives; etc. May be repeated for credit with topic or instructor change. P/NP or letter grading.

110. Disability and Popular Culture. (4) Lecture, four hours. Drawing from disability studies, media studies, and theories of representation, examination of increasing visibility of people with disabilities in popular culture. How disability is represented and who gets to represent it. Analysis and critique of representations of people with disabilities in late 20th and early 21st century cinema and television to understand functioning of representation in popular culture. Development of critical media literacy skills. P/NP or letter grading.

111. Disability as Spectacle: Performing Nonnormative Bodies. (4) Same as Theater M114. Lecture, four hours. Examination through eyes of disability activists and artists interrogating how aspects of body get deemed nonnormative. Investigation of what it means to be nonnormative, as well as how to contest invisibility of some disabilities that happen when normal bodies get defined visually. Use of this lens on disability to research and explore role that bodies play in political battles over who gets socially valued and who does not. P/NP or letter grading.

M114. Variable Topics in Performance and Disability Studies. (4) Same as Theater M114. Seminar, four hours. Analysis and critique of depiction of disability in theater and performance. Topics may include: performance studies; race, gender, and disability; representation of disability in theater; and more. May be repeated for credit with topic or instructor change. P/NP or letter grading.

115. Enforcing Normalcy: Disability and Popular Culture. (4) Same as American Sign Language M115. Lecture, three hours. Exploration of historical, medical, legal, social, and cultural influences that have constructed categories of normacy, disability, and deafness. Building on writing of Michel Foucault and critical work in field of disability studies, require that have reinforced standards of normacy throughout 19th and 20th centuries to present. Primary attention to role of medical authority in West, history of eugenics, and contemporary bioethics. P/NP or letter grading.

120. Special Topics on Race and Disability. (4) Same as American Sign Language M115. Seminar, 90 minutes; field- work, one half hours. Genealogy of autism as diagnostic category, and its roots as new, rare, and obscure condition in early 1940s to its current contested status as minority identity. Use of scholarly texts from disability studies, lesbian, gay, bisexual, and transgender studies, popular culture, performance, and film to investigate factors that shape identity and disability as basis for identity. May be repeated for credit with topic or instructor change. P/NP or letter grading.

129. Theory, Policy, and Practice of Special Education: Implications for Educators and Advocates. (4) Lecture, three hours. Examination of issues of disability in K-12 schooling and social and historical contexts of special education policy, as well as its implementation. Focus on equity-related legal and policy issues in education, specifically those associated with disability, race, language, and gender and how these intersect. Consideration of landmark court decisions such as Brown versus Board of Education (1954) and Individuals with Disabilities Education Act (IDEA) as well as key legislation such as Americans with Disabilities Act (ADA) and Individuals with Disabilities Education Act (IDEA). P/NP or letter grading.

M130. Disability Policy and Services in Contemporary America. (4) Same as Gerontology M115 and Social Welfare M116S. Lecture, three hours. Limited to juniors/seniors. Growing numbers of people of all ages with disabilities are leading active and productive lives in American communities as they struggle to lead such lives. Who are people with disabilities in contemporary America? How has U.S. responded over time to various needs and aspirations of people with disabilities, young and old? How have some been made over time by disability advocates? Has government addressed needs of advocates for various disability populations? What do we know about extent to which public policies and programs are responsive to people in need? How do demographics, economics, and politics continue to influence evolving public policy responses? P/NP or letter grading.

131. Alternative Approaches to Language Acquisition. (4) Seminar, four hours. Examination of everyday experience of language delay, disorder, difference, and disability in schooling and community as becoming language development by asking questions from disability studies about inclusion, individual- and socially constructed experience, and power. P/NP or letter grading.


M139. Perspectives on Autism and Neurodiversity. (4) Same as Psychology M139. Seminar, three and one half hours. Genealogy of autism as diagnostic category and cultural roots as new, rare, and obscure condition in early 1940s to its current contested status as minority identity and/or global epidemic. Examination of material
sourced from various fields and disciplines invested in autism, including psychology, neuroscience, arts and humanities, popular media, anthropology, activism, and critical autism studies. Students encounter and analyze multiple perspectives on autism and put them in conversation with one another. Attention paid to ways people on spectrum define, explain, and represent their own experiences of autism and discussion of what ramifications of these multiple framings are in context of autism intervention strategy and disability policy today. Letter grading.

145. Mental Disability Law. (4) Lecture, three hours. Examination of definitions and some characteristics of those conditions that are recognized as mental disabilities. Review of evolution of these definitions through U.S. and Western histories, with focus on role conceptions of mental illness has played in various racial, gender, and economic regimes. Exploring of personal approaches U.S. legal system takes to address needs, vulnerabilities, and rights of people with disabilities and of people with mental disabilities. Discussion of some key challenges and controversies affecting policy and changing in this area and vary strategies for engaging those challenges. P/ NP or letter grading.


M149. Disability Rights Law. (4) Same as Sociology M120). Lecture, four hours. Examination of disability-related issues impacting people of all ages across wide spectrum of settings in both public and private sectors—perception of ability, higher education, military to workplace, and from intensified urban environments to online and virtual worlds. Topics range from persistent and recurring disputes to novel controversies such as medical technologies and changing times. P/ NP or letter grading.


M157. Rechoreographing Disability. (4) Same as Dance M123. Lecture, four hours. This studio of range of performance by, featuring, or about people who identify as disabled, reading and discussion of range of writing about experiences of disability and process of developing choreography by disabled or non-disabled artists. Introduction to concept of choreography as political/cultural ideology broadly defined as scored movement and organization and behavior of bodies, as well as choreography as poetic form for expression of ideas, creative tool, or product. Viewing and discussion of work, and embodying ideas through movement and dance-making. P/ NP or letter grading.

M161. Sports, Normativity, and Body. (4) Same as Gender Studies M164. Lecture, three hours. Overview of significant topics in sport; investigation of intersections of athletic competition and disability, addressing variety of perspectives and themes on disability and sport, such as passing, sports international competition versus charity, and masculinity. Sources include readings, film, television, and biographical writings that address sports, body and disability generally, and Special Olympics specifically. P/ NP or letter grading.

163A-163B. Autism Media Laboratory. (5-5) (Formerly numbered 163.) Lecture, two hours; discussion, one hour. Course 163A is requisite to course 163B. People with autism who are nonspeaking face many challenges fully participating in their communities. Exploration of documentary filmmaking as catalyst to educate greater community on importance of inclusion of people with disabilities. Students work together with community teachers, autistic self-advocates who are non-speaking or minimally speaking, to create documentary short films. Students explore issues related to autism and disability while gaining exposure to observational, interview-based, and participatory documentary shooting and editing techniques. Letter grading.

M164A. Documentary Production for Social Change: Mobility in Los Angeles. (5) Same as Urban Planning M164A. Seminar, three hours; fieldwork, four hours. Documentary filmmaking as catalyst for social change, using daily commute in Los Angeles as case study. Introduction to issues surrounding production of documentary film, and discussion on experiences of community access to public transportation, and car-based versus alternative (bike and pedestrian) forms of commuting. Exposure to observational, interview-based, and participatory documentary shooting and editing techniques, as well as social marketing strategies that are vital to documentary production and distribution. Letter grading.

164B. Documenting Disability/On Film. (4) Lecture, four hours. Focus on digital media is used as contemporary form of investigation or research or is attached to research projects, built into websites, used in campaigns for social and political activism, and exhibited in various venues. Documentaries appear more frequently on cable, public television, and Internet. Examination of how powerful documentaries still rely on well-told stories by powerful filmmakers. P/ NP or letter grading.

M166. Future of Humanity: Bioethics of Health and Disability. (4) Same as Society and Genetics M166. Lecture, three hours; discussion, one hour. Should parents choose to have abortion if their fetus will likely have disability? Should persons decide to end their own life through physician-aided dying? Is disability, form of human variation we can live well with, disease we should eliminate, or mistake we should cut out of genetic diversity? Students and disability with critical discussions of topics including human reproduction, genetic manipulation, and end-of-life treatment and care. Consideration of concepts such as freedom, kinship, dignity, advocacy, equal rights, and good life to challenge how we think of modern humanity, structure of our world, and how we live our lives. P/ NP or letter grading.


M183. Being Human: Identity in Age of Genomics and Neurosciences. (5) Same as Honors Colloquium M183 and Society and Genetics M183. Seminar, three hours. Exploration of relationship between identity and mental illness through different approaches to nature and treatment of mental illness from biomedical and biocultural perspectives. Examination of conditions such as dissociative identity disorder, trauma, psychosis, autism, and depression. P/ NP or letter grading.

187. Special Topics in Disability Studies. (4) Lecture, one hour; discussion, two hours (when scheduled). Variable topics in one area within disability studies. May be repeated for credit with topic and/or instructor change. Letter grading.

189. Advanced Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to undergraduate lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture, course instructor.

May be applied toward honors credit for eligible students. Honors content noted on transcript. P/ NP or letter grading.

189HC. Honors Contracts. (5) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to upper-division lecture course. Individual study with lecture instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

191. Variable Topics Senior Research Seminars: Disability Studies. (5) Seminar, three hours. Enforced prerequisite: course 101 or 101W. Designed for advanced junior/senior Disability Studies minors. In-depth study of major themes in disability studies research. Themes vary by instructor and term. Students pursue independent research related to course theme, with guidance from instructor, then share and critique other student works in progress. May be repeated for credit with topic change. Letter grading.

M191F. Topics in Gender and Disability. (5) Same as Sociology M191F. Seminar, three hours. In-depth study of major themes in disability studies and gender studies. Themes vary by instructor and term. Students pursue independent research related to course theme, with guidance from instructor, then share and critique other student works in progress. May be repeated for credit with topic change. Letter grading.

199A. Capstone Research Seminar. (2) Seminar, two hours. Enforced prerequisite: course 195CE. Required of students pursuing Disability Studies minor. Integration of off-campus work with academic theories and concepts learned in field of discipline studies. Students report on their internship experiences and analyze relationship between their internship and issues of policy, ethics, systemic responses to community needs, or potential for individual transformation. Students identify one faculty mentor and develop proposal for required capstone research project. Letter grading.

195CE. Community and Corporate Internships in Disability Studies. (4) Tutorial, to be arranged; fieldwork, eight to 10 hours. Limited to juniors/seniors. Internship in corporate, governmental, or nonprofit setting coordinated through Center for Community Learning. Students complete weekly written assignments, attend bimonthly meetings with graduate student advisor and coordinator, and write final research paper. Faculty sponsor and graduate student coordinator construct series of reading assignments that examine issues related to internship. Internship experience is evaluated for credit with consent of Center for Community Learning. Individual contract with supervising faculty member required. Letter grading.


198A-198B. Honors Research in Disability Studies. (5) Tutorial, three hours. Enforced prerequisite: course 101 or 101W. Course 198A is enforced requisite to 198B. Limited to juniors/seniors. Required capstone course to Disability Studies minor for students pursuing College Honors. Development and completion of honors thesis or comprehensive research project under direct supervision of faculty member. May be repeated for credit. Individual contract required. In Progress (198A) letter (198B) grade.

198C. Honors Research in Disability Studies. (2 to 8) Tutorial, one hour. Limited to juniors/seniors. Development and completion of honors thesis or comprehensive research project under direct supervision of faculty member. May be repeated for credit. Individual contract required. Letter grading.

199A-199B. Directed Research in Disability Studies. (2-4) Tutorial, one hour. Enforced prerequisite: course 101 or 101W. Course 199A is enforced requisite to 199B. Limited to juniors/seniors. Required capstone
course to Disability Studies minor. Supervised individual research or investigation under guidance of faculty mentor. Culminating paper or project required. May be repeated for credit. Individual contract required. In Progress (199A) and letter (199B) grading.

190C. Senior Project in Disability Studies. (2 to 8) Tutorial, one hour. Limited to juniors/seniors. Supervised individual research or investigation under guidance of faculty mentor. Culminating paper or project required. May be repeated for credit. Individual contract required. Letter grading.

Graduate Course
375. Teaching Apprentice Practicum. (1 to 4) Seminar, to be arranged. Preparation: apprentice personnel employment as teaching assistant, associate, or fellow. Teaching apprenticeship under active guidance and supervision of regular faculty member responsible for curriculum and instruction at UCLA. May be repeated for credit. S/U grading.

Earth, Planetary, and Space Sciences

Scope and Objectives
The disciplines of geology, geochemistry, geophysics, paleobiology, and space physics are concerned with the structure and evolution of the solar system, Earth, and life: essentially, the physical environment and its interaction with biota. These studies entail the application of fundamental physics and chemistry to a broad subject area stretching from astronomy at one extreme to biology at the other. Areas that are emphasized in the Department of Earth, Planetary, and Space Sciences include isotope and trace element analyses, petrology and mineralogy, sedimentology, paleobiology and organic geochemistry, structural geology and tectonophysics, seismology, the Earth’s interior, planetary physics, and space plasmas.

The variety of techniques applied lead to several concentrations within the three main disciplines. Students completing their studies with a BS or MS degree usually are employed by industry. Many are employed in environment-related activities; others are involved in mineral or oil exploration or in construction. Students attaining the PhD degree are usually employed by universities or governmental and industrial research groups.

The Bachelor of Arts program in Earth and Environmental Science is intended to provide a broad background in Earth sciences that is especially appropriate for students intending to become K through 12 teachers in Earth, physical, or life sciences. It may also be of interest to students who plan careers in business, dentistry, environmental sciences, government, journalism, law, medicine, or public health. Those who intend to become professional geologists, geochemists, or geophysicists and/or to continue into graduate studies in Earth or space sciences are urged to pursue one of the BS degrees.

Undergraduate Study
All of the majors offered in the Earth, Planetary, and Space Sciences Department are designated capstone majors. While the specific nature of the capstone experience varies by major, students are required to use skill and knowledge sets from previous coursework to complete a field-based research project from conception to written report. Projects must be placed into context within the current state of understanding, and results are presented at a research symposium or published as a brief report.

Earth and Environmental Science BA
Capstone Major
Learning Outcomes
The Earth and Environmental Science major has the following learning outcomes:

- Use of skills and knowledge set from coursework
- Definition of research methodology and data
- Placement of project into context of current state of understanding
- Completion of research project from conception to written report
- Oral presentation at a research symposium, or brief published report, of field experience results
- Preparation for the Major

Required: Earth, Planetary, and Space Sciences 1, 5 or 8 or 13 or 15 or 16 or 17 or 20, 51, 61; Chemistry and Biochemistry 14A, 14B, and 14BL or 20A, 20B, and 20L; Life Sciences 1 or another introductory organismal biology course; Mathematics 3A and 3B, or 31A and 31B; Physics 1A or SA. Each course must be passed with a minimum grade of C–.

Transfer Students
Transfer applicants to the Earth and Environmental Science major with 90 or more quarter units (60 semester units) must have completed one introductory Earth sciences course, two general chemistry courses with laboratory for majors, and one calculus course. One introductory biology course with laboratory and one calculus-based physics course with laboratory are recommended.

Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

The Major
Required: Three courses from Earth, Planetary, and Space Sciences 103A, 103B, 111, 112, 116, 119; one capstone 199 research course in the senior year; three additional upper-division courses from Earth, Planetary, and Space Sciences other than 100; two courses from Geography 101, M102, M103, 116, 120, M126, M131, 136.

Engineering Geology BS
Capstone Major
Learning Outcomes
The Engineering Geology major has the following learning outcomes:

- Use of skills and knowledge set from coursework
- Definition of research methodology and data
- Placement of project into context of current state of understanding
• Completion of research project from conception to written report
• Oral presentation at a research symposium, or brief published report, of field experience results

Preparation for the Major
Required: Earth, Planetary, and Space Sciences 103A, 103B, 111, 112, M118 (or 136A); two courses from 103C, 116, and 133; two capstone field research courses (121, 121F); two additional 100-level department courses.

Geophysics BS
Capstone Major
Learning Outcomes
The Geophysics major has the following learning outcomes:
• Use of skills and knowledge set from coursework
• Definition of research methodology and data
• Placement of project into context of current state of understanding
• Completion of research project from conception to written report
• Oral presentation at a research symposium, or brief published report, of field experience results

Preparation for the Major
Required: Earth, Planetary, and Space Sciences 103A, 103B, 111, 112, M118 (or 136A); two courses from 103C, 116, and 133; two capstone field research courses (121, 121F); two additional 100-level department courses.

Geophysics BS
Capstone Major
Learning Outcomes
The Geophysics major has the following learning outcomes:
• Use of skills and knowledge set from coursework
• Definition of research methodology and data
• Placement of project into context of current state of understanding
• Completion of research project from conception to written report
• Oral presentation at a research symposium, or brief published report, of field experience results

Earth and Environmental Science Minor
In the Earth and Environmental Science minor students study the interaction of the solid Earth, oceans, and atmosphere with human activities. The minor provides background in Earth sciences that is especially appropriate for students intending to become K through 12 teachers in Earth, physical, or life sciences. It may also be of interest to students who plan careers in business, dentistry, environmental sciences, government, journalism, law, medicine, or public health.

To enter the minor, students must have an overall grade-point average of 2.0 or better.

Required Lower-Division Courses (8 units): Earth, Planetary, and Space Sciences 1, one course from 5, 13, 15, or 61.

Required Upper-Division Courses (20 units minimum): Five courses from Earth, Planetary, and Space Sciences 101, 112, C113, 139, 150, 153.

A minimum of 20 upper-division units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor.

Each minor course must be taken for a letter grade, and students must have an overall grade-point average of 2.0 or better in the minor. Successful completion of the minor is indicated on the transcript and diploma.

Geochemistry Minor
Geochemistry emphasizes use of minerals, magmas, elements, and isotopes to date events, determine rates, and track matter through its cycles in the planets and biosphere. These skills are valuable in environmental and natural-resource work and anthropology, as well as in studying the histories of the planets.

To enter the Geochemistry minor, students must have an overall grade-point average of 2.0 or better.

Required Lower-Division Courses (8 units): Earth, Planetary, and Space Sciences 1, 51.
Geology Minor

Geology is the study of the surface of the Earth and the rocks and processes that created it. Field methods, interpretation of rocks, and modern plate-tectonic models are emphasized, with the goals of finding valuable or hazardous materials and inferring geologic history. These skills are valuable in engineering, urban planning, and environmental and resource studies.

To enter the Geology minor, students must have an overall grade-point average of 2.0 or better.

Required Lower-Division Courses (8 to 9 units):
- Earth, Planetary, and Space Sciences 1, 61.

Required Upper-Division Courses (22 units):
- Earth, Planetary, and Space Sciences 112, 119, and three courses from C107, 116, 125, 133, 139, 150, 171.

A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor.

Each minor course must be taken for a letter grade, and students must have an overall grade-point average of 2.0 or better in the minor. Successful completion of the minor is indicated on the transcript and diploma.

Geophysics and Planetary Physics Minor

Classical physics, supported by field data, mathematics, and computing, is used to understand diverse processes from ocean circulation and earthquakes to the formation of planets and the flow of particles and electromagnetic fields in space. These skills are valuable in environmental, engineering, and resource studies and more broadly in any kind of career that requires quantitative analysis.

To enter the Geophysics and Planetary Physics minor, students must have an overall grade-point average of 2.0 or better.

Required Lower-Division Courses (12 units):
- Earth, Planetary, and Space Sciences 1, 8, 9.

Required Upper-Division Courses (20 units):

A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor.

Each minor course must be taken for a letter grade, and students must have an overall grade-point average of 2.0 or better in the minor. Successful completion of the minor is indicated on the transcript and diploma.

Graduate Study

Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Division website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Graduate Degrees

The Department of Earth, Planetary, and Space Sciences offers Master of Science (MS), Candidate in Philosophy (CPhil), and Doctor of Philosophy (PhD) degrees in Geochemistry, Master of Science (MS), Candidate in Philosophy (CPhil), and Doctor of Philosophy (PhD) degrees in Geology, and Master of Science (MS) and Doctor of Philosophy (PhD) degrees in Geophysics and Space Physics.

Earth, Planetary, and Space Sciences

Lower-Division Courses

1. Introduction to Earth Science. (5) Lecture, three hours; laboratory, two hours; field days. Not open to students with credit for or currently enrolled in course 100. Elements of Earth science, study of Earth materials; nature and interpretation of geologic evidence; study of geologic processes; historical aspects of geology. Mandatory field trips introduce students to solving of geologic problems in field. P/NP or letter grading.

2. Environmental Geology of Los Angeles. (4) Lecture, three hours; discussion, two hours; field trips. Geologic hazards and natural resources of greater Los Angeles region. Topics include Los Angeles geologic hazards such as earthquakes, landslides, and floods; Southern California oil fields; gold and gem mining in region; local beach processes; and Los Angeles water resource problems. Field trips to San Andreas fault, California aqueduct, active landslides, and historic gold mines. P/NP or letter grading.

M7. Perils of Space: Introduction to Space Weather. (4) Formerly numbered 7.) (Same as Atmospheric and Oceanic Sciences 7.) Lecture, four hours. Concepts of plasma physics. Dynamic wind, solar wind, and Earth’s magnetosphere and ionosphere. Space storms and substorms and their impacts on astronauts, spacecraft, and surface power and communication grids. P/NP or letter grading.

8. Earthquakes. (5) Lecture, three hours; laboratory, one hour; one field day. Causes and effects of earthquakes, Plate motion, frictional faulting, earthquake instability, wave propagation, earthquake damage, and other social effects. Hazard reduction through earthquake forecasting and earthquake-resistant design. P/NP or letter grading.


11. Natural Disasters. (5) Lecture, three hours; discussion, one hour; one field day. Global urbanization together with historical demographic population shift to coastal areas, especially around Pacific Ocean’s “Ring of Fire,” are placing increasingly large parts of this planet’s human population at risk due to earthquakes, volcanoes, and tsunamis. Global climate change combines with variety of geologic processes to create enhanced risks from catastrophic mass movements (e.g., landslides), hurricanes, floods, and fires. Exploration of physical processes behind natural disasters and discussion of how these natural events affect quality of human life. P/NP or letter grading.

12. Blue Planet: Introduction to Oceanography. (5) Lecture, three hours; laboratory, two hours. Not open for credit to students with credit for or currently enrolled in Ecology and Evolutionary Biology 25. General introduction to geological, physical, chemical, and biological processes and history of Earth’s global ocean system. P/NP or letter grading.


15. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

16. Natural History of Southern California. (5) Lecture, two hours; laboratory, three hours; five field weekends. Identification, distribution, diversity of native plants and communities; identification and interpretation of rocks, minerals, and geologic features and geologic history of physiographic regions of Southern California. Emphasis on field-based learning. P/NP or letter grading.


18. Geologic Maps. (4) Lecture, two hours; laboratory, three hours; five field days. Enforced requisite: course 1. Preparation for completion of chemistry requirement. Principles of mineralogy. Mineral structure and bonding and crystal chemistry, with focus on materials of interest for Earth and planetary sciences. P/NP or letter grading.

19. Geologic Models. (4) Lecture, two hours; laboratory, three hours; five field days. Enforced requisite: course 1. Planning, creation, and interpretation of geologic models, including both practical and philosophical problems that arise. Topographic and geologic mapping in field. Interpretation of published maps in laboratory. P/NP or letter grading.

20. Honors Seminars. (1) Designed as adjunct to lower-division course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor.
May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

99HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as an adjunct to lower-division lecture course. Individual contract with lecture instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

99. Student Research Program. (1 to 2) Tutorial (supervised research or other scholarly work), three hours per week; one-hour required in lower-division research for lower-division students under guidance of faculty mentor. Students must be in good academic standing and enrolled in minimum of 12 units (excluding this course). Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP grading.

Upper-Division Courses

100. Principles of Earth Science. (4) Lecture, three hours. Designed for nonmajors. Not open to students with credit for course 1. Fundamentals of physical geology and Earth problems as related to such topics as continental drift and development of large-scale features of Earth; physical and biological evolution. P/NP or letter grading.

101. Earth’s Energy: Diminishing Fossil Resources and Prospects for Solar Future. (4) Lecture, three hours; laboratory, two hours; two optional field trips. Preparation: one lower-division atmospheric sciences, chemistry, Earth sciences, or physics course. Earth’s energy resources (fossil fuels and alternatives) from Earth science and sustainability perspective. P/NP or letter grading.

103A. Igneous Petrology. (5) Lecture, two to three hours; laboratory, six hours; four field trips. Enforced requisites: courses 103B, 148, or equivalent; 201L, Mathematics 3B or 31B. Mineralogy, chemical composition, and field occurrence of igneous rocks with reference to their origin by melting in relation to thermodynamics as applied to petrology. Formation of magma, its movement, eruption, crystallization, and chemical evolution. Petrologic structure of crust and mantle and its relation to seismology. Overview of petrological and chemical evolution of Earth, moon, and other planets from their origin to present. P/NP or letter grading.

103B. Sedimentary Petrology. (5) Lecture, two to three hours; laboratory, six hours; four field trips. Enforced requisite: course 103A. Recommended: course 61. Study of sedimentary rocks based on characteristics of sedimentary particles and dynamics of depositional processes. Lectures focus on development of depositional facies models, and laboratories emphasize recognition of sedimentary deposits from each major depositional facies. P/NP or letter grading.

103C. Metamorphic Petrology. (5) Lecture, two to three hours; laboratory, six hours; four field trips. Enforced requisite: course 103A. Interpretation of metamorphic rocks based on field occurrence, mineralogical composition, texture, and application of physical and chemical processes. P/NP or letter grading.

106. Physical Geochemistry. (4) Lecture, three hours. Requisite: course 51. Basic principles of physical chemistry for geologic applications. Thermodynamics and kinetics of reactions among minerals, natural waters, and magmas; construction and interpretation of phase diagrams; case studies of important geochemical and environmental issues. Concurrently scheduled in addition to P/NP or letter grading.

107. Geochemistry. (4) Lecture, three hours; discussion, one hour. Designed for junior/senior and graduate physical sciences students. Origin and abundance of elements and their isotopes; distribution and chemistry of elements in Earth and its environment. Concurrently scheduled with course C207. P/NP or letter grading.

109. Isotope Geochemistry. (4) Lecture, three hours; discussion, one hour. Designed for junior/senior and graduate physical and biological sciences stu-

111. Stratigraphic and Field Geology. (6) Lecture, two hours; laboratory, three hours; fieldwork, eight hours per week. Enforced requisites: courses 61, 112. Principles of stratigraphy; geologic mapping of selected areas; preparation of geologic report. Letter grading.

111G. Field Geology. (2 to 4) Lecture, two hours; laboratory, three hours; fieldwork, one day per week. Designed to provide in-region training in mapping principles of stratigraphy, structural geology, and map interpretation. S/U or letter grading.

112. Structural Geology. (5) Lecture, three hours; laboratory, six hours. Requisites: courses 1, 61. Recommended: course 51. Planar and linear structures at different scales in sedimentary, metamorphic, and igneous rocks. Faults and folds, their description, classification, and kinematic and dynamic analysis. Deformation, strength, and rheological properties of rocks. P/NP or letter grading.

113. Biological and Environmental Geochemistry. (4) Lecture, three hours. Requisites: Chemistry 1A and 1B (or 20A and 20B), Mathematics 3A, 3B, and 3C (or 3P and letter grade). Enforced requisite: at least one lower-division Earth, planetary, and space sciences course. Intended for junior/senior life and physical sciences students. Study of chemistry of Earth’s surface environment and interplay between biology, human activity, and geology. Introduction to origin and composition of Earth, including atmosphere, crust, and hydrosphere. Examination of how reservoirs are affected by biological cycles and feedbacks to biological evolution and diversity. Local and global-scale movements of biologically important elements like carbon, nitrogen, and phosphorus. Concurrently scheduled with course C216. P/NP or letter grading.

114A. Aquatic Geobiology. (4) Same as Atmospheric and Oceanic Sciences 114A.) Lecture, three hours; discussion, one hour. Recommended requisite: course C107 or Atmospheric and Oceanic Sciences 110S. Fundamental geobiological metabolic organisms and biochemical reactions occurring in aquatic systems, how they impact their environment, and how they interact in complex ecosystems such as methane seeps, hydrothermal vents, coral reefs, microbial mats, or deep biosphere. Metabolism include different phototrophic, heterotrophic, and chemoheterotrophic prokaryotes. Examination of geochemical profiles and understanding of how microorganisms govern mineralization and element cycling in aquatic systems. Concurrently scheduled with course CM214. P/NP or letter grading.

116. Paleontology. (4) Lecture, three hours; laboratory, three hours; field trips. Requisite: Life Sciences 7A or 7B. Review of major groups of fossil organisms and their significance in geology and biology. P/NP or letter grading.

M118. Advanced Paleontology. (4) Same as Ecology and Evolutionary Biology M145S.) Lecture, three hours. Requisite: course 116 or Ecology and Evolutionary Biology 110. Comprehensive examination of major factors that have influenced history of life, including analytical approaches to analyzing patterns in fossil record, nature of rock record, and contribution of data from stable isotopes, functional morphology, phylogeny, and development of biogeography. P/NP or letter grading.

119. Continental Drift and Plate Tectonics. (4) Lecture, three hours; computer laboratory/discussion, one hour. Requisite: course 61 recommended for juniors and seniors in physical sciences. Exploration of history and phenomenology of plate tectonics theory, with particular focus on observables and kinematics. Evidence supporting plate tectonics theory (magnetics, anomalies, seismicity, gravity). Tectonic, igneous, and metamorphic processes at plate boundaries. Focus on plate kinematics both past and present and learn how to compute and plot velocities. Exploration of plate dynamics including driving mechanism and convection. P/NP or letter grading.

120. Rubey Colloquium: Major Advances in Earth, Planetary, and Space Sciences. (4) Lecture, three hours. Designed for juniors and seniors. Lectures on major advances in Earth science offered by distinguished authorities (including regular faculty members). Super-


121F. Advanced Field Geology: Fieldwork. (4) Fieldwork, 20 hours. Advanced techniques in field geologic mapping and preparation of geologic maps and cross sections, including igneous, metamorphic, and sedimentary terrain. P/NP or letter grading.

122. Introduction to Seismology. (4) Lecture, three hours; discussion, two hours. Enforced requisites: Mathematics 31A, 31B, 32A, Physics 1A (or 1Am), 1B (or 1Bm). Recommended: course 122A. Seismic wave equation, ray theory, travel time inversion, surface waves, free oscillations. Earthquakes and source theory. P/NP or letter grading.

123. Geosciences Outreach. (4) Lecture, two hours; discussion, two hours; field days. Recommended requisites: at least three college-level life sciences or physical sciences courses. Introduction to pedagogical approaches and methods used in geosciences community to educate demographically diverse populations, including K-12 through higher-education audiences and general public. Focus on development of motivational and public communication skill sets as practiced at outreach events and demonstrations, including communication science in multicultural set-tings. Concurrently scheduled with courses C114, C114F, and C114P; recommended for three schedule events over course of term, providing perspective and basis for follow-up discussions on critical geosciences literacy at local, state, and national levels. Letter grading.

125. Volcanoes. (4) Lecture, three hours; laboratory, three hours; field trips). Requisite: course 1. Recommended: course 103A, Physics 1A or 1AH or 6A. Types of volcanism. Physics of magma chambers, volcanic plumbing, explosive and effusive eruptions as illustrated by historical examples. Practical methods of volcano monitoring, with field trip. P/NP or letter grading.

126. Advanced Petrology. (4) Lecture, three hours; laboratory, three hours; field trips. Enforced requisite: course 103A. Understanding genesis of igneous rocks based on geochemical, tectonostratigraphic, and other geological evidence and principles. Concurrently scheduled with course C226. P/NP or letter grading.

131. Historical and Regional Geography. (4) Lecture, three hours; discussion; two hours; field trips. Requisite: course 61. Recommended: courses 103B, 111, 112. Principles of historical geology. Physical evolution of Earth, especially North America. One area of Earth to be investigated in detail, with emphasis on its geoecological evolution through time. Letter grading.

136A. Applied Geophysics. (4) Lecture, three hours; laboratory, three hours; field trips; four field trips. Enforced requisite: Knowledge of MATLAB. Enforced requisites: course 71, Mathematics 3A, 3B, and 3C, or 31A, 31B, and 32A, Physics 1A, 1B, 4AL, and 4BL, or 6A, 6B, and 6C. Seismic reflection and refraction, Fourier analysis and deconvolution, vibrosies, synthetic seismograms, marine seismics, seismic interpretation, gravity and magnetic fields, inversion uniqueness and depth rules. P/NP or letter grading.

136G. Field Geophysics. (6) Lecture, three hours; discussion, one hour; laboratory, two hours; fieldwork, 10 hours. Enforced requisites: course 136A. Application of seismic, gravimetric, magnetic, electrical, and other geophysical methods to geologic and engineering problems. Techniques of field geophysics, including planning, data collection, data reduction, and interpretation. Fieldwork on unsolved problems (week-long field trip). P/NP or letter grading.

137. Petroleum Geology. (4) Lecture, three hours. Requisites: Geology 141 or equivalent. Geology applied to exploration for and production of natural gas and petroleum; techniques of surface and subsurface geology; problems of petroleum geology. P/NP or letter grading.

139. Engineering and Environmental Geology. (4) Lecture, three hours; discussion, one hour. Requisite: course 1 or 100. Recommended: course 111. Principles and practice of soil mechanics and foundation engineering in light of geologic conditions, recognition, prediction, and control or abatement of subsidence, landslides, earthquakes, and other geologic aspects of urban planning and subsurface disposal of liquids and solid wastes. P/NP or letter grading.

M140. Introduction to Fluid Dynamics. (4) (Same as Atmospheric and Oceanic Sciences M120.) Lecture, three hours; discussion, one hour. Corequisite: Physics 131 or equivalent. Essentials of the physics of fluids. Kinematics, conservation laws and equations of fluid motion. Circulation theorems and vorticity dynamics. Rotating frame, irrotational flow. Letter grading.


C143. Advanced Physical Sedimentology. (4) Lecture, three hours; fieldwork, three hours. Requisites: courses 103B, 111. Advanced treatment of topics related to sediments, sedimentary rocks, and information that can be extracted from each. Interpretation of depositional environment from complex sedimentary structures and textures. Includes field and lecture component and builds on previous sedimentology bas- is. Concurrently scheduled with course C243. P/NP or letter grading.


152. Physics of Earth. (4) Lecture, three hours; discussion, one hour. Requisite: Mathematics 1C or 1CH. Crust-to-core tour of Earth and physics used to explore it. Isostasy, plate tectonics, mantle convection, and geochemistry as understood with tools of elasticity, fluid mechanics, and thermodynamics. P/NP or letter grading.

153. Oceans and Atmospheres. (4) Lecture, three hours; discussion, one hour; Requisites: Mathematics 31A, 31B, 32A, Physics 1A, 1B, and 1C. Statics and dynamics of ocean and atmospheric circulation systems. P/NP or letter grading.


155. Planetary Physics. (4) Lecture, three hours; discussion, one hour. Requisites: Mathematics 31A, 31B, 32A, Physics 1A, 1B, and 1C (or 1AH, 1BH, and 1CH). Formation of solar nebula; origin of planets and their satellites; comets, asteroids, and meteorites; celestial mechanics and dynamics; physics of planetary inte- riors, surfaces, and atmospheres. P/NP or letter grading.

156. Introduction to Space Plasma Physics. (4) Lecture, three hours. Enforced requisite: Electrical Engineering 101A or Physics 110A. Senior-level introductory course on electrody- namics of ionized gases, with emphasis on funda- mental processes relevant to laboratory, space, and astrophysical plasmas. Examples mostly from space, planetary, and astrophysical plasmas, stellar winds, planetary magnetospheres, and radiation belts. Other applications include space weather, energy generation, propulsion, generation of coherent radiation, particle beams, and fusion ener- gy production. Letter grading.

C160. Field Seminar. (2 to 6) Seminar, three hours; discussion, one hour; fieldwork, five to 20 days. Requisite: course 61. Field-based teaching and discussion forum that varies in focus from general geology through structure and tectonics, sedimentology, igne- nous and metamorphic petrology, volcanology, or other subdisciplines as prescribed. May be repeated for credit. Concurrently scheduled with course C260. P/NP or letter grading.

C162. Application of Remote Sensing in Field. (4) Fieldwork, five hours; laboratory, two hours. Requisites: course 150. Application of remote-sensing techniques to field situations. Digital analysis and interpretation of near-infrared, thermal-infrared, and microwave data from satellites and aircraft. Field observation of study site in One Week between Winter and Spring Quarters. Concur- rently scheduled with course C262. P/NP or letter grading.

165. TectonicGeomorphology. (4) Lecture, three hours; laboratory, two hours. Enforced requisite: course 1 or 8. Recommended: courses 61, 119. Mathematics 31A. Interactions between tectonic, climate, and surface processes shape landscapes over days to millions of years. Focus on quantifying how tectonic and surface processes interact to govern landscape evolution. How landscapes can provide insights into physical and chemical processes, including ice, bedrock weathering, soil formation, hillslope transport, and river and glacial erosion. How tectonics, climate, and underlying lithology may influence those pro- cesses in landscapes. P/NP or letter grading.

171. Advanced Topics in Geosciences. (4) Lecture, three hours; laboratory, three hours. Enforced requisites: course 71, Mathematics 3A, 3B, and 3C (or 31A and 31B). Original programming and application of software to the analysis of geoscience problems with non-ideal or incomplete data sets. Interpretation/extrapolation with graphics to generate hypotheses; forward modeling from fundamental equations to explore im- plications; probabilistic testing of models against data; Examples and exercises from Earth and space sci- ences. Introduction to software used in research and industry. P/NP or letter grading.

CM173. Earth Process and Evolutionary History. (8) (Same as Ecology and Evolution Biology C173) Lecture, four hours; laboratory, three hours. Requisites: Chemistry 14A, 14B (or 20A, 20B), Life Sciences 1, 2, 3, 4, and 7A, 7B, and 7C (or 1A and 1B); introductory computer experience; exploration of rela- tionship between physical processes, such as tec- tonics and climate, and how they affect surface and impact biology of Earth. Study of evolution of uni- verse, Earth, and life, with integration of history of sci- ence, including Darwinian evolution and plate tec- tonics revolutions. Study of formation of matter offers tools to understand geologic process of climate and ecology of Earth. Study of Earth may provide insight to ex- pected future human-influenced climate. Consider- ation of major events in history of life on Earth. Data and methods from geology, genetics, and geochem- istry are integrated to reconstruct past events. This re- veals how Earth processes shaped life and how life shaped Earth. Concurrently scheduled with course CM273.

C179. Search for Extraterrestrial Intelligence: The- ory and Applications. (4) Lecture, two hours; labora- tory, two hours. Enforced requisites: Mathematics 31B, Physics 1B. Recommended: course 71, Com- puter Science 31, Physics 110B, Program in Computing 10A. Search for extraterrestrial intelligence (SETI) is based on number of astronomical, mathem- atical, statistical, and computational principles. Cov- erage of fundamental concepts in these disciplines in context of SETI; abundance and architecture of extra- solar planetary systems; radio astronomy, including wave propagation and dispersion; signal processing, including sampling theory and Fourier transforms; random processes, including Gaussian and Poisson statistics, and algorithm development. Design of ob- servational program, acquisition of telescopic data, development of algorithms to analyze data, and writing report or oral presentation. Concurrently scheduled with course C279. P/NP or letter grading.

188. Special Topics in Earth, Planetary, and Space Sciences. (4) Lecture/laboratory, to be arranged. Dependent on availability of instrumental or temporary courses, such as those taught by visiting faculty mem- bers. P/NP or letter grading.

189. Advanced Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to undergraduate lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible stu- dents. Honors content noted on transcript. Letter grading.

193A-193B-193C. Undergraduate Journal Club Seminars: Earth, Planetary, and Space Sciences. (1–1–1) Seminar, one hour. Limited to undergraduate students. Study of current research in planetary, solar, and space sciences, including participation in weekly department colloquium. May be repeated for credit. P/ NP grading.

C194. Research Topics in Earth, Planetary, and Space Sciences. (1) Research group meeting, one to three hours. Designed for departmental students par- ticipating in research group. Discussion of current re- search literature in areas of research interest of faculty member teaching course. May be repeated for credit. Concurrently scheduled with course C296. P/NP grading.

198. Honors Research in Earth, Planetary, and Space Sciences. (4) Tutorial, two hours. Limited to seniors. Individual research designed to broaden and deepen students’ knowledge of some phase of Earth, planetary, and space sciences. Development and completion of honors thesis or comprehensive re- search project under direct supervision of faculty mentor. May be repeated for maximum of 16 units. In- dividual contract required. Letter grading.

199H. Directed Research or Senior Project in Earth, Planetary, and Space Sciences. (2 to 8) Tutorial, two hours. Limited to juniors/seniors. Supervised indi- vidual research or investigation under guidance of fac- ulty mentor. Culminating with research project or thesis. May be repeated for credit. Individual contract re- quired. P/NP or letter grading.

Graduate Courses

200A. Introduction to Geophysics and Space Phys- ics I: Solid Earth and Planets. (4) Lecture, three hours; discussion, one hour. Requisites: Physics 110A, 110B, 112, 131. Geochemistry, cosmochemistry, and petrology; geo- tectonics; gravity field; seismology; heat transfer, thermal and mechanical evolution of mantle; core and geodynamo; lunar and planetary interiors. S/U or letter grading.

200B. Introduction to Geophysics and Space Phys- ics II: Oceans and Atmospheres. (4) Lecture, three hours. Requisites: Physics 105A, 110A, 110B, 131. Evo- lution, chemistry, and heat balance of oceans and at-
morphologies; molecular spectra, relative transfer, and planetary observations; dynamics of oceans and atmospheres. S/U or letter grading.


200D. Planetary Atmospheres. (4) Lecture, three hours. Introduction to basic physical processes (both exogenic and endogenic) shaping solid surfaces in solar system and description of their optical and thermophysical properties, with emphasis on simple physics-based approach. Discussion of current literature. S/U or letter grading.

200E. Planetary Origins and Evolution. (4) Lecture, four hours. Designed for graduate students who are interested in origins of planetary systems and history of solar system. Open to advanced undergraduate students with consent of instructor. Provides background needed to understand and/or participate in research related to formation and evolution of solar system and of other planetary systems. Description of star/planet formation process and subsequent evolution of planetary systems by integrating observations and theory. Emphasizes interdisciplinary knowledge, communication between Departments of Earth and Space Sciences and Physics and Astronomy graduate students and faculty members. S/U or letter grading.


206. Physical Geochemistry. (4) Lecture, three hours. Requisite: course 51. Basic principles of physical chemistry for geologic applications. Thermodynamics of reactions among minerals, natural waters, and magmas; construction and interpretation of phase diagrams; case studies of important geochemical and environmental issues. Concurrently scheduled with course C107 and open to graduate students. Open to upper-division Earth, planetary, and space sciences students. Concurrently scheduled with course C113. S/U or letter grading.


209. Isotope Geochemistry. (4) Lecture, three hours; discussion, one hour. Designed for junior/senior and graduate physical and biological sciences students. Theoretical aspects of isotope behavior; stable and radiogenic isotopes. Principles of geochronology. Use of isotopes as tracers in crust and mantle processes. Stable isotopes as indicators of environmental and paleoclimate. Concurrently scheduled with course C109. Additional literature selection that may result in class presentation, expected of graduate students. S/U or letter grading.

210. Geochemical Kinetics: Thermochronometry. (4) Lecture, three hours; discussion, one hour. Designated for senior graduate students. Emphasis on physical-chemical processes at Earth-surface conditions with laboratory experiments and field observations; applications to geochronology, geologic, organic geochemistry, and cosmology. Content varies from year to year. May be repeated for credit. S/U or letter grading.

211. Field Geology. (4) Lecture, one hour; discussion, one hour; fieldwork, 10 hours. Emphasis on laboratory investigations of rock and soil samples. Field study of rocks and structures; descriptive geology of specific areas. Field area varies from year to year. May be repeated for credit. S/U or letter grading.

212. Introduction to Seismology. (4) Lecture, three hours. Types of seismic waves; travel-time seismology; epicenter location; amplitude variations; seismograph theory; explosion seismology; seismic; focal conditions; surface wave analysis; microseisms and tsunami. S/U or letter grading.

213. Biological and Environmental Geochemistry. (4) Lecture, three hours. Requisites: Chemistry 1A and 2B, or 4A and 5B, Mathematics 3A, 3B, and 11A (or 11B). Emphasis on environmental applications of geochemistry students, e.g., understanding and predicting environmental impact of fossil fuels, natural gas, and other industrial processes. S/U or letter grading.

214. Aquatic Geomicrobiology. (4) Same as Atmospheric and Oceanic Sciences C223. Lecture, three hours; discussion, one hour. Recommended requisite: course C107 or Atmospheric and Oceanic Sciences M105. Fundamental geomicrobiological metabolisms and biogeochemical reactions occurring in aquatic systems, and their influence on the Earth system, and how they interact in complex ecosystems such as methane seeps, hydrothermal vents, coral reefs, microbial mats, or deep biophere. Metabolisms include different photosynthetic, heterotrophic, and chemotrophic pathways; creation of geochemical profiles and understanding of how microorganisms govern mineralization and element cycling in aquatic systems. Concurrently scheduled with course C113. S/U or letter grading.

215. Evolutionary Biology. (4) Same as Ecology and Evolutionary Biology M200A. Lecture, two hours; discussion, two hours. Current concepts and topics in evolutionary biology, including microevolution, speciation and species concepts, analytical biogeography, adaptive radiation, mass extinction, community evolution, molecular evolution, and development of evolutionary thought. S/U or letter grading.

216. Molecular Evolution. (4) Same as Ecology and Evolutionary Biology M231. Lecture, two hours; discussion, two hours. Lecture topics in molecular evolution, with special emphasis on molecular phylogenetics, molecular clocks, phylogeny of extant and extinct species, and molecular systematics, statistical tests, and phylogenetic algorithms. Themes may vary from year to year. May be repeated for credit. S/U or letter grading.

217. Planetary and Orbital Dynamics. (4) Lecture, four hours. Planetary rotations, satellite orbits, and tidal dissipation; planetary orbital system; resonance effects and chaos; spin-orbit and orbit-orbit coupling, planetary rings. S/U or letter grading.

218. Advanced Petrology. (4) Lecture, three hours; laboratory, three hours; field trips. Requisite: course 103A. Designed for graduate students. Understanding genesis of igneous rocks based on geochemical, tectonomorphic, and other geologic and geochemical principles. Concurrently scheduled with course C126. Graduate students required to read more advanced references, make class presentations on pertinent topics, and lead seminar-type discussions on their selected topics. S/U or letter grading.

219. Planetary Atmospheres. (4) Lecture, three hours; laboratory/discussion, 90 minutes. Requisite: courses 203A and 203B. Introduction to models and principles used for graduate students. Basic principles of planetary dynamo generation. Planetary core dynamics and core convection; mean field dynamo theory; kinematic dynamo theory; survey of modeling techniques and results. S/U or letter grading.

M229. Planetary Atmospheres and Climates. (4) Same as Atmospheric and Oceanic Sciences M210. Lecture, three hours. Enforced requisite: Physics 1C. Planetary atmospheric structure and composition, radiative transfer, and climate dynamics. Topics include origin and evolution of atmospheres, paleoclimate of Earth and Mars, atmospheric tides, atmospheric gravity waves, parallel radiative transfer, climate dynamics, climate forcings/feedbacks, bifurcation, and climate hysteresis. S/U or letter grading.

220. Principles of Paleobiology. (4) Lecture/discussion, three hours. Limited to graduate science students. Open to qualified undergraduate biological and physical sciences students with consent of instructor. Current and classic problems in paleobiology, with emphasis on interdisciplinary aspects of principles of paleobiology, geology, organic geochemistry, and cosmology. Content varies from year to year. May be repeated for credit. S/U or letter grading.

221. Field Geology. (4) Lecture, one hour; discussion, one hour; fieldwork, 10 hours. Emphasis on laboratory investigations of rock and soil samples. Field study of rocks and structures; descriptive geology of specific areas. Field area varies from year to year. May be repeated for credit. S/U or letter grading.

222. Introduction to Seismology. (4) Lecture, three hours. Types of seismic waves; travel-time seismology; epicenter location; amplitude variations; seismograph theory; explosion seismology; seismic; focal conditions; surface wave analysis; microseisms and tsunami. S/U or letter grading.

223. Principles of Paleobiology. (4) Lecture/discussion, three hours. Limited to graduate science students. Open to qualified undergraduate biological and physical sciences students with consent of instructor. Current and classic problems in paleobiology, with emphasis on interdisciplinary aspects of principles of paleobiology, geology, organic geochemistry, and cosmology. Content varies from year to year. May be repeated for credit. S/U or letter grading.

224. Introduction to Seismology. (4) Lecture, three hours. Types of seismic waves; travel-time seismology; epicenter location; amplitude variations; seismograph theory; explosion seismology; seismic; focal conditions; surface wave analysis; microseisms and tsunami. S/U or letter grading.

225. Physics and Chemistry of Planetary Interiors. (4) Lecture, four hours. Chemical compositions of Earth and planets; high-pressure and temperature effects, phase transitions, and equations of state; variations of density and temperature with depth; thermal and compositional evolution. S/U or letter grading.

226. Advanced Petrology. (4) Lecture, three hours; laboratory, three hours; field trips. Requisite: course 103A. Designed for graduate students. Understanding genesis of igneous rocks based on geochemical, tectonomorphic, and other geologic and geochemical principles. Concurrently scheduled with course C126. Graduate students required to read more advanced references, make class presentations on pertinent topics, and lead seminar-type discussions on their selected topics. S/U or letter grading.

M229. Planetary Atmospheres and Climates. (4) Same as Atmospheric and Oceanic Sciences M210. Lecture, three hours. Enforced requisite: Physics 1C. Planetary atmospheric structure and composition, radiative transfer, and climate dynamics. Topics include origin and evolution of atmospheres, paleoclimate of Earth and Mars, atmospheric tides, atmospheric gravity waves, parallel radiative transfer, climate dynamics, climate forcings/feedbacks, bifurcation, and climate hysteresis. S/U or letter grading.

230. X-Ray Crystallography. (4) Lecture, three hours; laboratory, three hours. Enforced requisite: courses 203A and 203B. Introduction to models and principles used for graduate students. Basic principles of planetary dynamo generation. Planetary core dynamics and core convection; mean field dynamo theory; kinematic dynamo theory; survey of modeling techniques and results. S/U or letter grading.

231. Crystal Chemistry and Structure of Minerals. (4) Lecture, three hours; laboratory, three hours. Requisite: course 51. Bonding, interatomic configurations, polymorphic transformations, isotopym, thermal and hydrogen disorder; survey of structures of common minerals, and relation of physical and chemical properties to crystal structure. S/U or letter grading.

234. Petrologic Phase Equilibria. (4) Lecture, three hours; discussion, three hours. Requisites: course 51, Chemistry 110B. Principles governing homogeneous and heterogeneous phase relations for selected applications to mineral stability relations in igneous and metamorphic rocks (fractional crystallization, partial melting, hydrothermal solutions, element partitioning in coexisting phases). S/U or letter grading.

235. Current Research in Geochemistry. (1–1–1) Seminar, one hour. Limited to graduate Earth, planetary, and space sciences students. Seminars presented by staff, outside speakers, and graduate students stressing current research in Earth and planetary chemistry. May be repeated for credit. S/U grading.

238. Metamorphic Petrology. (4) Lecture, three hours; laboratory, six hours. Preparation: one introduction to metamorphic petrology course. Interpretation of metamorphic rocks in light of observation, theory, and experiment. Geological relations, petrographic evidence, metamorphic zoning, thermodynamic concepts, reaction projections, chemogeochemical relationships, use of piezoelectric haloes, Rayleigh depletion model, isotopic fractionation, environmental factors of metamorphism. Laboratory study of representative metamorphic rocks and suites of rocks selected to illustrate topics discussed in lectures. S/U or letter grading.

240. Space Plasma Physics. (4) Lecture, three hours. Requisite: course 200C or Physics 210A. Study of plasma physics and plasmas in space, with emphasis on interactions based on magnetohydrodynamics and kinetic theory. Applications to solar or planetary winds, steady-state magnetospheres, magnetospheric convection, substorm processes, magnetic merging, field-aligned currents and magnetosphere/ionosphere coupling, ring current dynamics, and wave particle instabilities. S/U or letter grading.


242. Sandstone Petrology. (4) Lecture, two hours; laboratory, four hours. Requisite or corequisite: course C141. Petrographic study of sandstones, with emphasis on provenance, petrophysics, and paleotectonic reconstructions. S/U or letter grading.

243. Advanced Physical Sedimentology. (4) Lecture, three hours; fieldwork, three hours. Requisites: courses 103B, 111, or equivalent. Advanced topics related to sediments, sedimentary rocks, and information that can be extracted from each. Interpretation of depositional environments from complex structures and textures. Includes field and lecture component and builds on previous sedimentology background. S/U or letter grading.


245A-254A-254C. Current Research in Tectonics. (1–1–1) Seminar, one hour. Limited to graduate Earth, planetary, and space sciences students. Seminars presented by staff, outside speakers, and graduate students on current research in tectonics. May be repeated for credit. S/U grading.

246. Advanced Structural Geology. (4) Lecture, three hours; discussion, two hours. Requisite: course 111. Principles governing fracture, folding, and flow of rocks; solutions of structural problems at various scales; regional tectonic problems. S/U or letter grading.

251. Seminar: Mineralogy. (4) Seminar, three hours. Examination of groups of rock-forming minerals (e.g., feldspars), integrating such aspects as crystal structure, crystal chemistry, phase equilibria, and petrogenesis. S/U or letter grading.

252. Seminar: Geochemistry. (4) Seminar, two hours; discussion, two hours. Phase equilibria under crustal conditions, chemistry of ocean waters, recent and ancient sedimentary record of the upper mantle, geochronology, cosmochemistry, and cosmochemistry. S/U or letter grading.

253. Seminar: Petrology. (4) Seminar, three hours. Problems of igneous or metamorphic petrology; methods of evaluating physical conditions of metamorphism; diffusion in mineralogic systems; origin of ultramafic rocks and problems of mantle; element fractionation among coexisting phases; other current subjects in field. S/U or letter grading.

255. Seminar: Structural Geology and Tectonics. (4) Seminar, three hours. Flow and fracture in Earth's crust from microscopic to continental scale and in experiments. Examples may include metamorphic terranes, glaciers, and continental margins or unconsolidated sediments. Modern concepts of oceanic basins; processes leading to segregation of continental-type rocks. S/U or letter grading.

257. Seminar: Paleontology. (4) Seminar/discussion, three hours. Advanced topics in paleobiology, biostatigraphy, paleoecology, and paleobiogeography, with emphasis on relations to other disciplines. S/U or letter grading.

259. Seminar: Paleotectonics. (4) Seminar, two hours; discussion, two hours. Requisite: course 244. Basin evolution and paleogeography, with emphasis on Phanerozoic of Western U.S. S/U or letter grading.

260. Field Seminar. (2 to 6) Seminar, three hours; discussion, one hour; fieldwork, five to 20 days. Requisite: course 61. Field-based teaching and discussion forum that varies in focus from general geology through structure and tectonics, sedimentology, igneous and metamorphic petrology, volcanology, or other subdivisions as prescribed. May be repeated for credit. Concurrently scheduled with course C160. S/U or letter grading.

261. Topics in Magnetospheric Plasma Physics. (4) Lecture, four hours. Lectures, discussions, and exercises on specific advanced topics in magnetospheric plasma physics. Previous courses examined magnetic storms, ring current theory, terrestrial and solar plasma properties, and adiabatic particle motion in Earth's radiation belts. S/U or letter grading.


263A. Solar System Magnetohydrodynamics. (4) Same as Astronomy M285.) Lecture, four hours. Dynamic processes in the solar system, including the Sun's wind, magnetic fields, and the interaction with the solar wind and interplanetary medium. S/U grading.

264. Order of Magnitude and Planetary Sciences. (4) Seminar, three hours; discussion, three hours. Limited to departmental graduate students. Many graduate students have had little practice in making rough estimates or order of magnitude (OOM) assessments of physical problems, and even less practice at talking through problems with others. One key problem is tendency for rote memorization to take precedence over understanding. Discussion of basic problems found in OOM problems and techniques for solving problems appropriate to Earth, planetary, and space sciences, to incite physically based reasoning and promote effective on-your-feet communication. Attendance at departmental colloquia required each week. S/U or letter grading.

265. Instrumentation, Data Processing, and Data Analysis in Space Physics. (4) Lecture, three hours. Preparation, applying, and operating of magnetometers and other instruments; data processing and display, and archiving. Time-series analysis techniques, including filtering. Fourier series, eigenanalysis, and power spectra. S/U or letter grading.

M270A-M270B-M270C. Seminars: Climate Dynamics. (2 to 4 each) (Same as Atmospheric and Oceanic Sciences M272A-M272B-M272C and Geography M270A-M270B-M270C.) Seminar, two hours. Archaeoastronomy, geological, and meteorological problems in the context of climate and climate change. May be repeated for credit. S/U or letter grading.

CM273. Earth Process and Evolutionary History. (8) (Same as Ecology and Evolutionary Biology CM228.) Lecture, four hours; laboratory, three hours. Requisites: Chemistry 14A, 14B (or 20A, 20B), Life Sciences 1, 2, 3, and 4, or 7A, 7B, and 7C (or 7A and introductory course in geology). Exploration of relationships between physical processes, such as tectonics and climate, and how they affect surface and impact biology of Earth. Evolution of universe, Earth, and life, with integration of history of science, including Darwinian evolution and plate tectonics revolutions. Study of formation of matter offers tools for understanding the evolution of the Earth and the development of geological processes and climate. Understanding of major events in history of life on Earth. Data and methods used in geological, geochemical, and geophysical sciences are integrated to reconstruct past events. This reveals how Earth processes shaped life and how life shaped Earth. Concurrently scheduled with course CM173 or CM174.

C279. Search for Extraterrestrial Intelligence: Theory and Applications. (4) Lecture, four hours; laboratory, two hours. Enforced requisites: Mathematics 31B, 31C or Physics 18B, 18E, Computer Science 31, Physics 110B, Program in Computing 10A. Search for extraterrestrial intelligence (SETI) is based on number of astronomical, mathematical, statistical, and computational principles. Coverage of fundamental concepts in these disciplines in context of SETI: abundance and architecture of extra-solar planetary systems; radio astronomy, including wave propagation and dispersion; signal processing, including sampling theory and Fourier transforms; random processes, including Gaussian and Poisson statistics, and algorithm development. Design of observational system, programming and development of algorithms to analyze data, and writing of report on results. Concurrently scheduled with course C179. S/U or letter grading.

282. Seminar: Geophysics. (4) Seminar, two hours; discussion, two hours. Enforced requisites: Mathematics 31B, 31C or Physics 18B, 18E, Computer Science 31, Physics 110B, Program in Computing 10A. Search for extraterrestrial intelligence (SETI) is based on number of astronomical, mathematical, statistical, and computational principles. Coverage of fundamental concepts in these disciplines in context of SETI: abundance and architecture of extra-solar planetary systems; radio astronomy, including wave propagation and dispersion; signal processing, including sampling theory and Fourier transforms; random processes, including Gaussian and Poisson statistics, and algorithm development. Design of observational system, programming and development of algorithms to analyze data, and writing of report on results. Concurrently scheduled with course C179. S/U or letter grading.

M285. Origin and Evolution of Solar System. (4) (Same as Astronomy M285.) Lecture, four hours. Dynamic problems of solar system; chemical evidence from geochemistry, meteorites, and solar atmosphere; nucleosynthesis; solar origin, evolution, and termination; solar system processes, formation of planets and satellite systems. Content varies from year to year. May be repeated for credit. S/U grading.
Graduate Study

The East Asian Studies Program offers the Master of Arts (MA) degree in East Asian Studies.

East Asian Studies

Lower-Division Course

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

Graduate Courses

291A-291B. Variable Topics in East Asian Studies. (4–4) Seminar, three hours. Selected topics on East Asia. May be repeated for credit with topic change. S/U or letter grading.

ECOLOGY AND EVOLUTIONARY BIOLOGY

College of Letters and Science

101 Hershey Hall
Box 957426
Los Angeles, CA 90095-7246

Graduate Study

Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Division website.

In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Scope and Objectives

The Master of Arts degree in East Asian Studies offers an interdisciplinary and highly flexible program of study. With opportunities to take a range of advanced courses in the social sciences and humanities, students are able to tailor their programs to emphasize particular methodological and disciplinary approaches and to focus in depth on the region as a whole and on its dynamics in particular countries. Coursework and language offerings range from the ancient to the contemporary and across disciplines and methodologies. The program offers particular strengths in anthropology, history, literature, political science, social science, and the arts. Students are encouraged to tailor programs to their particular needs and career interests with a thorough grounding in the history and culture of the region.

Students who are therefore prepared to undertake a range of international and interdisciplinary study and research, as well as to pursue careers in government, business, publishing, and related fields.

Professors

Michael E. Alfaro, PhD
Priyanga A. Amarasekare, PhD
Paul H. Barber, PhD
Daniel T. Blumstein, PhD
Donald G. Buth, PhD
Peggy M. Fong, PhD
Gregory F. Grether, PhD
David K. Jacobs, PhD
Peter M. Kareiva, PhD
James O. Lloyd-Smith, PhD
Glen M. Macdonald, PhD
Peter N. Nonacs, PhD
Lawren Sack, PhD
Van M. Savage, PhD
Barrett A. Schlinger, PhD
Karen E. Sears, PhD
H. Bradley Shaffer, PhD
Thomas B. Smith, PhD
Victoria L. Sork, PhD
Robert K. Wayne, PhD

Directed Individual Study and/or Research. (2 to 12) Tutorial, to be arranged. May be repeated. S/U or letter grading.

Preparation for MS Comprehensive Examination or PhD Qualifying Examinations. (2 to 8) Tutorial, to be arranged. S/U grading.

MS Research and Thesis Preparation. (2 to 12) Tutorial, to be arranged. May be repeated. S/U grading.

PhD Research and Dissertation Preparation. (2 to 12) Tutorial, to be arranged. S/U grading.
problems facing the world today, and all influence species. All of these subject areas address practical population and community dynamics of multiple organisms, and so are adapted to their environments is the major challenge of the discipline. To meet this challenge, the Biology major is designed for students who desire exposure to a wide range of biological subjects. The remaining two majors—Ecology, Behavior, and Evolution and Marine Biology—provide more specialized instruction and strong preparation for employment or subsequent graduate study in the respective disciplines.

Two of the majors offered in the department are designated capstone majors: Ecology, Behavior, and Evolution and Marine Biology. In both programs students apply theory and technique learned through four years of classroom and laboratory experience to their own independent projects. The main purpose of the capstone is to provide a unique field experience that involves designing and executing a research project. Students are aided in the scientific process of learning about a new ecosystem, developing relevant questions, designing conceptually based projects, troubleshooting and completing the work, and writing a publication-ready manuscript. They are also expected to exhibit strong teamwork, problem-solving, and communication skills.

Biology BS

The Biology major is designed for students with a broad interest in biology who desire to pursue careers in a wide range of biological and related fields. It provides students with excellent background preparation for postgraduate training in medicine and other health sciences, in tracks leading to academic and public service careers in biology, in biological industries, and even in nonbiological careers such as business, agriculture, and law. Emphasis is on breadth of training to expose students to all levels of modern biology.

Learning Outcomes

The Biology major has the following learning outcomes:

- Broad understanding of basic biology concepts and principles across different levels of biological organization, from molecules to ecosystems
- Effective oral and written communication of scientific information
- Demonstrated understanding of the processes involved in new knowledge generation, including the scientific method, data collection, and data analysis
- Ability to critically evaluate scientific concepts presented in diverse media, from scientific articles to the popular press

Preparation for the Major

Life Sciences Core Curriculum

Required: Chemistry and Biochemistry 14A, 14B, 14BL, 14C, and 14D, or 20A, 20B, 20L, 30A, 30AL, and 30B; Life Sciences 30A, 30B, and 40 or Statistics 13, or Mathematics 3A, 3B, 3C, and Life Sciences 40 or Statistics 13, or Mathematics 31A or 31AL, 31B, 32A, and Life Sciences 40 or Statistics 13; Physics 1A, 1B, 1C, 4AL, and 4BL, or 5A, 5B, and 5C. Students must also complete one of two life sciences sequences—either Life Sciences 1, 2, 3, 4, and 23L, or 7A, 7B, 7C, and 23L. They may not substitute courses in either sequence.

Each core curriculum course must be passed with a grade of C– or better, and all courses must be completed with an overall grade-point average of 2.0 or better. Students receiving a grade below C– in two core curriculum courses, either in separate courses or repetitions of the same course, are subject to dismissal from the major.

Transfer Students

Transfer applicants to the Biology major with 90 or more units must complete the following introductory courses prior to admission to UCLA: one year of general biology with laboratory for majors, preferably equivalent to Life Sciences 1 and 2, or 7A, 7B, and 7C, one year of calculus, one year of general chemistry with laboratory for majors, and one semester of organic chemistry with laboratory. A second semester of organic chemistry or one year of calculus-based physics is strongly recommended but not required for admission.

Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

The Major

Students must take two courses from each principle:


Information Flow: Anthropology 124P, 128P, Chemistry and Biochemistry C100, 133A, 166, Ecology and Evolutionary Biology 100, 100L, 116, 120 (not open for credit to students with credit for course 185), 121, 122, 125, C126, 129, 132, 134B, C135, 136, 137, 153, 156, 162, 162L, 170 (not open for credit to students with credit for Physiology and Molecular Biology 166), 171, C172, C174, 176, M178, C179, 180A, 180B, 183, Life Sciences 107, Microbiology, Immunology, and Molecular Genetics 100L and 101 (must be taken together to satisfy requirement), 103AL, 103BL, 109AL, 109BL, 123, 122,
Each Life Sciences core curriculum course must be passed with a grade of C– or better, and all courses must be completed with an overall grade-point average of 2.0 or better. Students receiving a grade below C– in three core curriculum courses, either in separate courses or repetitions of the same course, are ineligible for the Biology major.

A minimum of five upper-division courses for the major must be taken within the Ecology and Evolutionary Biology Department. A minimum of two laboratory courses must be taken, including a minimum of one upper-division ecology and evolution biology laboratory course.

Courses applied to major requirements may be applied to one core principle only. Courses listed in multiple principles may not be applied simultaneously.

Field quarter instructors determine to which core principle courses apply (four requirements). A maximum of 8 units of the Ecology and Evolutionary Biology 198 series or 4 units of Ecology and Evolutionary Biology 199 may be applied toward the major. The principal investigator determines to which principle the course applies, after the student’s work and quarter are complete. The course must be for a minimum of 4 units. Credit for 199 courses from other departments may not be applied.

Each course applied toward requirements for the major must be taken for a letter grade. Courses applied to upper-division major requirements must have a minimum of 4 units. Courses with fewer than four units may be taken together to satisfy one course requirement. A maximum of one course requirement may be satisfied. A 6-unit course counts towards upper-division major requirements. A maximum of 8 units of the Ecology and Evolutionary Biology major with 90 or more units must complete the following learning outcomes:

- Demonstrated broad knowledge of fundamentals of ecology, behavior, evolution, or marine biology acquired through coursework
- Development of skills in library research, data interpretation, synthesis, and scientific writing
- Use of current primary scientific literature, including database searches, identification of appropriate sources, and reading and understanding papers
- Understanding of key questions and hypotheses, interpretation of results and conclusions, and discrimination of quality through critique
- Use of knowledge gained for conception and execution of student project that includes self-developed questions and hypotheses, design of appropriate theoretical or empirical/experimental approach, execution of that approach, and analysis and interpretation of data
- Communication of original scientific work to colleagues and mentors through capstone scientific paper
- Demonstrated communication skills through oral or poster presentation at a symposium
- Display of strong teamwork and problem-solving skills

**Preparation for the Major**

**Life Sciences Core Curriculum**

**Required:** Chemistry and Biochemistry 14A, 14B, 14CL, 14D, and 14E; or 1A, 1B, 1L, 2A, 2L, 3A, 3AL, and 3B; and Physics 1A, 1B, and 1L. Chemistry 2A, 2B, 2L, and 3A, or Mathematics 31A or 31AL, 31B, 32A, and 32B, or Statistics 13; or Mathematics 3A, 3B, 3C, and Life Sciences 40 or Statistics 13, or Mathematics 31A or 31AL, 31B, 32A, and Life Sciences 40 or Statistics 13; or Physics 1A, 1B, 1C, 1AL, 1BL, 4A, 4B, and 4L, or 5A, 5B, and 5C.

**Students** must also complete one of two life science sequences—either Life Sciences 1, 2, 3, 4, and 23L, or 7A, 7B, 7C, and 23L. They may not substitute courses in either sequence.

Each core curriculum course must be passed with a grade of C– or better, and all courses must be completed with an overall grade-point average of 2.0 or better. Students receiving a grade below C– in two core curriculum courses, either in separate courses or repetitions of the same course, are subject to dismissal from the major.

**Transfer Students**

Transfer applicants to the Ecology, Behavior, and Evolution major with 90 or more units must complete the following introductory courses prior to admission to UCLA: one year of general biology with laboratory for majors, preferably equivalent to Life Sciences 1 and 2, or 7A, 7B, and 7C, one year of calculus, one year of general chemistry with laboratory for majors, and one semester of organic chemistry or one year of calculus-based physics is strongly recommended but not required for admission.

Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.
The Major

Students must complete the following courses:

1. At least 4 morphology and systematics units (one course) from Ecology and Evolutionary Biology 101, 103, 105, 110, 111, 112, 113A, 113AL, 114A, 115, 117, 130, M157, or 184
2. At least 4 physiology units (one course) from Ecology and Evolutionary Biology M157, 162, 162L, 170, Physiological Science 165, or 166. Students with credit for Ecology and Evolutionary Biology 170 cannot also take Physiological Science 166
3. At least 12 ecology, behavior, and evolution units (three courses) from Anthropology 128P, Ecology and Evolutionary Biology 100, 113A, 113AL, 116, C119A, C119B, 120, 121, 122, C128, 128, 129, 130, 133, C135, 136, 137, 142, 144, 151A, 152, 153, 154, 155, M157, 161, 162, CM173 or (Earth, Planetary, and Space Sciences CM173), C174, 175, M178 or (Bioengineering CM186 or Computational and Systems Biology M186 or Computer Science CM186), 183, 184, 185, 186, Life Sciences 107 (students with credit for Life Sciences 4 cannot take Life Sciences 107). Students with credit for Ecology and Evolutionary Biology 120 cannot also take course 185
4. One capstone field quarter consisting of 12 to 16 units from the Field Biology Quarter (FBQ), Marine Biology Quarter (MBQ), or preapproved equivalent (see undergraduate adviser)
5. At least 8 units (two courses) from Anthropology 128P, chemistry (except Chemistry and Biochemistry 188SA through 199; Chemistry and Biochemistry 153A and 153L are strongly recommended), Earth, planetary, and space sciences (geology only; except Earth, Planetary, and Space Sciences 188 through 199), ecology and evolutionary biology (except Ecology and Evolutionary Biology 188SA through 196), geography (except Geography 188SA through 199), Life Sciences 107 (students with credit for Life Sciences 4 cannot take Life Sciences 107), mathematics (except Mathematics 105A, 105B, 105C, 106, 188SA through 199), microbiology, immunology, and molecular genetics (except Microbiology, Immunology, and Molecular Genetics 192A through 199), Molecular, Cell, and Developmental Biology 172, physics (except Physics 188SA through 199); recommended: taxon-oriented courses in ecological, behavioral, and evolutionary processes such as Ecology and Evolutionary Biology 111, 112, 113A, 113AL, 114A, 115

A maximum of 8 units of the Ecology and Evolutionary Biology 198 series or 4 units of Ecology and Evolutionary Biology 199 may be applied toward the major. Credit for 199 courses from other departments may not be applied.

Courses offered as part of the Field Biology Quarter (FBQ) are open to all qualified students, but strict priority is given to students who are Ecology, Behavior, and Evolution majors, are graduating seniors, have taken a broad range of ecology, behavior, and evolution coursework, and have maintained a good grade-point average.

With consent of the instructors and department, students may enroll in 200-level courses and apply them toward major requirements.

Each course applied toward requirements for preparation for the major and the major must be taken for a letter grade. Ecology, Behavior, and Evolution majors must earn a C– or better in each course taken as preparation for the major, and at least a 2.0 (C) overall average in all courses applied toward the major. Courses applied to upper-division major requirements must have a minimum of 4 units. A 6-unit course counts as one course on the requirements for the major.

As requisites for the Marine Biology Quarter, students must have a 3.0 overall grade-point average and have taken Statistics 13 or equivalent. Preference for the Marine Biology Quarter is given to Ecology, Behavior, and Evolution and Marine Biology majors. It is strongly recommended that students complete Ecology and Evolutionary Biology 109 and 109L prior to applying for the Marine Biology Quarter. Contact the Undergraduate Advising Office for all requirements for the Marine and Field Biology quarters.

Marine Biology BS

Capstone Major

The Marine Biology major is designed for students who wish to specialize in the area of marine sciences. Completion of this major provides students with both an excellent background in biology and specialization in various disciplines such as oceanography, subtidal and intertidal ecology, and physiological marine organisms. Graduates are well prepared for postgraduate opportunities in the marine sciences, many other areas of biology, and medicine. The major provides valuable field experience with concomitant individual research opportunities in marine biology.

Learning Outcomes

The Marine Biology major has the following learning outcomes:

- Demonstrated broad knowledge of fundamentals of ecology, behavior, and evolution, or marine biology acquired through coursework
- Development of skills in library research, data interpretation, synthesis, and scientific writing
- Use of current primary scientific literature, including database searches, identification of appropriate sources, and reading and understanding papers
- Understanding of key questions and hypotheses, interpretation of results and conclusions, and discrimination of quality through critique
- Use of knowledge gained for conception and execution of student project that includes self-developed questions and hypotheses, design of appropriate theoretical or empirical/experimental approach, execution of that approach, and analysis and interpretation of data
- Communication of original scientific work to colleagues and mentors through capstone scientific paper
- Demonstrated communication skills through oral or poster presentation at a symposium
- Display of strong teamwork and problem-solving skills

Preparation for the Major

Life Sciences Core Curriculum

Required: Atmospheric and Oceanic Sciences 1 or Earth, Planetary, and Space Sciences 15; Chemistry and Biochemistry 14A, 14B, 14BL, 14C, and 14D, or 20A, 20B, 20L, 30A, 30AL, and 30B; Life Sciences 30A, 30B, and 40 or Statistics 13, or Mathematics 3A, 3B, 3C, and Life Sciences 40 or Statistics 13, or Mathematics 3A1 or 31AL, 31B, 32A, and Life Sciences 40 or Statistics 13; Physics 1A, 1B, 1C, 4AL, and 4BL, or 5A, 5B, and 5C.

Students must also complete one of two life sciences sequences—either Life Sciences 1, 2, 3, 4, and 23L, or 7A, 7B, 7C, and 23L. They may not substitute courses in either sequence.

Each core curriculum course must be passed with a grade of C– or better, and all courses must be completed with an overall grade-point average of 2.0 or better. Students receiving a grade below C– in two core curriculum courses, either in separate courses or repetitions of the same course, are subject to dismissal from the major.

Transfer Students

Transfer applicants to the Marine Biology major with 90 or more units must complete the following introductory courses prior to admission to UCLA: one year of general biology with laboratory for majors, preferably equivalent to Life Sciences 1 and 2, or 7A, 7B, and 7C, one year of calculus, one year of general chemistry with laboratory for majors, and one semester of organic chemistry with laboratory. A second semester of organic chemistry or one year of calculus-based physics is strongly recommended but not required for admission.

Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

The Major

Students must complete the following courses:

1. Ecology and Evolutionary Biology 109 and 109L
2. At least 4 laboratory units (one course) from Ecology and Evolutionary Biology 101, 105, 110, 112, 136, 170, or 181
3. At least 4 units of marine organismic biology or physiology (one course) from Ecology and Evolutionary Biology 101 (unless taken under item 2), 105 (unless taken under item 2), 107, 112, 128, 142, 170 (unless taken under item 2), C174, 184, or Physiological Science 166. Students with credit for Ecology and Evolutionary Biology 170 cannot also take Physiological Science 166
4. At least 4 units of ecology and behavior (one course) from Anthropology 128P, Ecology and Evolutionary Biology 100, 116, C119A, C119B, 122, C126, 128, 129, M131 (or Geography M110), 133, 136, 137, 142, 151A, 152, 154, 155, M157, 161, 162, C172, M178, or (Bioengineering CM186 or Computational and Systems Biology M186 or Computer Science CM186), 183, or 184
5. At least 4 evolution units (one course) from Anthropology M128S (or Society and Genetics M142), Ecology and Evolutionary Biology 116, 120, 121, 130, 133, C135, 144, CM173 (or Earth, Plan-
etary, and Space Sciences CM173), C174, 175, 184, 185, 186, or Life Sciences 107 (students with credit for Life Sciences 4 cannot take Life Sciences 107). Students with credit for Ecology and Evolutionary Biology 120 cannot also take course 185.

6. One capstone field quarter consisting of 12 to 16 units from the Marine Biology Quarter (MBQ) or preapproved equivalent (see undergraduate adviser)

7. One additional physical, chemical, or geological oceanography course from Atmospheric and Ocean Sciences 102, 103, 104, M105 (or Ecology and Evolutionary Biology M139), 130, Chemistry and Biochemistry 103, 132A, Earth, Planetary, and Space Sciences 100, 116, 119, C141, 153, Ecology and Evolutionary Biology M131 (or Geography M110), 153, 198B, 199, Geography 101, M118 (or Atmospheric and Oceanic Sciences M106), 123, 130, 169, Mechanical and Aerospace Engineering 103, or 150A, Molecular, Cell, and Developmental Biology 122.

Credit for 199 courses from other departments may not be applied.

With consent of the instructors and department, students may enroll in 200-level courses and apply them toward major requirements.

Each course applied toward requirements for preparation for the major and the major must be taken for a letter grade. Marine Biology majors must earn a C– or better in each course taken as preparation for the major, and at least a 2.0 (C) overall average in all courses applied toward the major. Courses applied to upper-division major requirements must have a minimum of 4 units. A 6-unit course counts as one course on the requirements for the major.

As requisites for the Marine Biology Quarter, students must have a 3.0 overall grade-point average and have taken Statistics 13 or equivalent. Preference for the Marine Biology Quarter is given to Ecology, Behavior, and Evolution majors, and Marine Biology majors. Students must complete Ecology and Evolutionary Biology 109 and 109L prior to participating in the Marine Biology Quarter. Contact the Undergraduate Advising Office for all requirements for the Marine and Field Biology quarters.

**Field Biology**

The department offers two quarter-long programs of advanced courses in field biology: the Field Biology Quarter (FBQ) and the Marine Biology Quarter (MBQ). These programs focus on the biology of organisms living in their natural environments, emphasize independent student research projects, and take place at field sites away from the UCLA campus. The course composition varies somewhat from year to year, but each program always carries 16 units of course credit. The Field Biology Quarter involves some combination of Ecology and Evolutionary Biology 103, 113B, 114B, 115, 118, 124A, 124B, 125, C126, 132, 134B, and 151B. The Marine Biology Quarter includes some combination of Ecology and Evolutionary Biology 102, 104, 123A, 123B, 147, 148, 163, 164, and 185. The Field and Marine Biology quarters may occur during fall, winter, or spring quarter, depending on location and faculty participation. To participate, students must enroll in all courses in the respective program. Participants in both programs are selected by personal interview. Information and applications are available in the Undergraduate Advising Office.

**Honors Program**

An overall grade-point average of 3.4 and a 3.4 in the major are required for graduation with honors. Highest honors are awarded to majors who have a GPA of 3.6 overall and a 3.6 in the major at graduation and who have successfully completed Ecology and Evolutionary Biology 198A and 198B. Students do not need to apply for departmental honors. All students are reviewed for honors.

**Computing Specialization**

Majors in Biology, Ecology, Behavior, and Evolution; and Marine Biology may select a specialization in Computing by (1) satisfying all the requirements for a bachelor’s degree in the specified major, (2) completing Program in Computing 10A, 10B, 10C, 30, and 60, and (3) completing one course from Computer Science CM186, Psychology 186A, or 186B. A grade of C– or better is required in each course, with a combined grade-point average in the specialization of at least 2.0. Students must petition for admission to the program and are advised to do so after completing Program in Computing 108 (petitions should be filed in the Undergraduate Advising Office). Students graduate with a bachelor’s degree in their major and a specialization in Computing.

**Conservation Biology Minor**

The Conservation Biology minor is designed for students who wish to augment their major program of study with courses addressing issues central to the conservation and sustainability of biodiversity and natural ecosystem processes. The minor seeks to provide students with a greater depth of experience and understanding of the role that science can play in developing conservation policy.

To enter the minor, students must (1) be in good academic standing (2.0 grade-point average or better), (2) have completed Life Sciences 1 or 7B, Ecology and Evolutionary Biology 100, and 116 (or Environment 121) with minimum grades of C or better, and (3) submit a petition through Message Center to the Undergraduate Advising Office. All degree requirements, including the specific requirements for this minor, must be fulfilled within the unit maximum set forth by the College of Letters and Science.

Non-life sciences majors wishing to minor in Conservation Biology should be aware that preparation courses in chemistry, life sciences, mathematics, and physics are required to some of the upper-division courses accepted for the minor.

**Required Lower-Division Course (5 units): Life Sciences 1 or 7B.**

**Required Upper-Division Courses (24 units minimum):** Ecology and Evolutionary Biology 100, 116 (or Environment 121), and four to six courses (19 units minimum) from 100L, 101, 103, 105, 109L, 111, 112, 113A, 113AL, 114A, 114B, C199A, C199B, 122, M127 (or Environment M102 or Geography M102), 129, M131 (or Geography M110), 142, 151A, 152, 153, 154, 155, 156, 162, 162L, C174, 176, 180A, 180B, 181, 184, Geography M102, M103 (or Environment M103), 106, 107, 116, 117, M118 (or Atmospheric and Oceanic Sciences M106), M126 (or Environment M126), M131, 133. Courses completed as part of the Field Biology Quarter and Marine Biology Quarter may be applied if not taken to fulfill a field quarter requirement; consult with the undergraduate counselors for more information. A maximum of two upper-division geography courses may be applied to the minor.

A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor. Transfer credit for any of the above is subject to departmental approval; consult with the undergraduate counselors before enrolling in any courses for the minor.

Each minor course must be taken for a letter grade, and students must have a minimum grade of C (2.0) in each and an overall grade-point average of 2.0 or better in the minor. Successful completion of the minor is indicated on the transcript and diploma.

**Evolutionary Medicine Minor**

The Evolutionary Medicine minor is designed for students who wish to augment their major program of study with courses that combine the disciplines of ecology and evolutionary biology, anthropology, psychology, and zoology with medicine to create new paradigms for investigating and understanding disease. The minor provides students with a greater depth of experience and understanding of the integration of evolutionary biology and medical education.

To enter the minor, students must (1) be in good academic standing (2.0 grade-point average or better), (2) have completed Life Sciences 1 or 7B, Ecology and Evolutionary Biology 100, and 120 or 185 with minimum grades of C or better, and (3) submit a petition through Message Center to the Undergraduate Advising Office. All degree requirements, including the specific requirements for this minor, must be fulfilled within the unit maximum set forth by the College of Letters and Science.

Non-life sciences majors wishing to minor in Evolutionary Medicine should be aware that preparation courses in chemistry, life sciences, mathematics, and physics are required to some of the upper-division courses accepted for the minor.

**Required Lower-Division Course (5 units): Life Sciences 1 or 7B.**

Graduate Study

Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Division website.

In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Graduate Degrees

The Department of Ecology and Evolutionary Biology offers Master of Science (M.S.), Candidate in Philosophy (CPhil), and Doctor of Philosophy (Ph.D.) degrees in Biology.

Ecology and Evolutionary Biology

Lower-Division Courses

10. Plants and Civilization. (4) Lecture, three hours; demonstration, one hour. Designed for nonmajors. Orign of crop plants; man’s role in development, distribution, and modification of food, fiber, medicinal, and other plants in relation to their natural history. P/NP or letter grading.

11. Biomedical Research Issues in Minority Communities. (5) Discussion, four hours. Limited to 30 students. Discussions and student presentations on biomedical research as it affects minority communities, with emphasis on methodology, design, consequences, and ethics of current research. Discussion leaders provide information on preparation and training for research careers. P/NP or letter grading.

12. Biodiversity and Extinction: Crisis and Conservation. (4) Lecture, three hours; discussion, one hour. Examination of ecological and evolutionary principles necessary to understand nature and importance of worldwide environmental crisis. Research by students of specific conservation issues and presentation of results to class. P/NP or letter grading.

13. Evolution of Life. (4) Lecture, three hours; discussion, one hour. Not open to life sciences majors. Limited to 100 students. Introduction to biology within framework of evolutionary theory. Relationships of evolutionary thought to other areas of knowledge and society. Natural selection and origin of variation examined in context of genetics, molecular biology, physiology, phylogeny, population dynamics, behavior, and ecology. Emphasis on critical role of historical processes. P/NP or letter grading.


18. Why Ecology Matters: Science Behind Environmental Issues. (5) Lecture, three hours; laboratory, one hour. Examination of scientific method, and ecological basis for local and global environmental issues. Major challenges to be faced in this century, including need to find interdisciplinary and collaborative solutions to world’s worsening environmental problems (e.g., global climate change, biodiversity loss, deforestation, pollution, declining water resources, declining fisheries). Environmental literacy to equip students to become leaders in green economy and to help forge solutions to current and future environmental crises that threaten natural resource base. P/NP or letter grading.

19. Flat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

21. Field Biology. (4) Lecture, three hours; discussion, two hours; field trips, three to four hours. Recommended preparation: Life Sciences 15. Not open for credit to students with credit for course 122 or Life Sciences 1. Introduction to natural history of Western North America, especially Southern California. Classification, distribution, and ecology of common plants and animals. P/NP or letter grading.

25. Living Ocean. (5) Lecture, three hours; laboratory, one hour; discussion, four hours. Not open for credit to students with credit for Earth, Planetary, and Space Sciences 15. Physical and chemical processes that take place in oceans, with emphasis on their effects on organisms. P/NP or letter grading.

40. Desert Life. (4) Lecture, three hours; laboratory, two hours. Introduction to fundamental structural, physiological, and behavioral features of desert organisms, with special emphasis on deserts of Western North America. Limited to 20 students. P/NP grading.

47. California’s DNA: Field Course. (1) Lecture, one hour; fieldwork, four hours (every other week). Limited to freshmen. Students join CALeDNA community science program and do fieldwork to sample local and endemic California. In collaboration with University of California natural reserves spanning coast to woodland, and desert to mountains. Analysis of samples for DNA to capture snapshot of local biodiversity. Prepares students for more intensive, related upper-division science course. Guided Saturday field trips or independent trips. Letter grading.

87. Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to upper-division lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be repeated for credit. P/NP or letter grading. Honors content noted on transcript. P/NP or letter grading.

98HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to lower-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for credit. Maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

95. Lower-Division Internship in Biology. (4) Tutorial, field work, six hours per week per unit. Internship course for lower-division students may be supervised by Center for Community Learning, fieldwork site, and faculty adviser. Consult Undergraduate Office for more information. May be repeated twice. Individual contract with supervising faculty member required. P/NP grading.

96. Communicating Science: Bringing Complex Concepts to Life. (2) Seminar, three hours. Limited to Ecology and Evolutionary Biology Department majors. Development of tools for research, interpreting and presenting complex scientific concepts concisely and effectively. Basic animation techniques and work in groups to illustrate life sciences concepts. How to engage audiences and convey clear messages. Letter grading.

97. Variable Topics in Ecology and Evolutionary Biology. (1 to 4) Seminar, three to 12 hours. Current issues in research in ecology and evolutionary biology. Consult Schedule of Classes for topics and instructors. May be repeated for credit with consent of instructor. P/NP or letter grading.

97XA. PEERS Freshman Seminar: Succeeding in Science. (1) Seminar, one hour. Limited to students in Program for Excellence in Education and Research in Sciences (PEERS). Series of lectures, workshops, and discussions to enhance student success in sciences by developing critical academic survival skills, acquainting students with practice of science, and highlighting opportunities available to participate in research as undergraduate students. P/NP grading.

97XB. PEERS Sophomore Seminar: Pathways in Science. (1) Seminar, one hour. Limited to students in Program for Excellence in Education and Research in Sciences (PEERS). Series of lectures and workshops to enhance student success in sciences by acquainting students with practice of science, opportunities available to participate in research as undergraduate students, and careers available to students with science degrees.

97XC. AAP Freshman Seminar: Succeeding in Science Majors and Careers. (1) Seminar, one hour. Limited to science majors in Academic Advancement Program (AAP) who took Mathematics 1 in fall term. Series of lectures, workshops, and discussions designed to enhance student success in sciences by developing critical academic survival skills, acquainting students with campus resources, introducing students to practice of science, and highlighting opportunities available to participate in research as undergraduate students. P/NP grading.

99. Student Research Program. (1 to 2) Tutorial (supervised research or other scholarly work), three hours per week per unit. Enrollment limited. Research for lower-division students under guidance of faculty mentor. Students must be in good academic standing and enrolled in minimum of 12 units (excluding this course). Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP grading.

Upper-Division Courses

100. Introduction to Ecology and Behavior. (4) Lecture, three hours; discussion, one hour. Prerequisite: Life Sciences 1 or 7B. Not open for credit to students with credit for course 118, 122, 124A, 124B, 125, 126, 129, 132, 134B, 136, or 151B. Introduction to methods and topics in ecology and behavior. Growth and regulation of populations, organization of communities, and ecosystems. How behaviors animals use to find food, choose mates, and interact in social groups. Letter grading.

100L. Introduction to Ecology and Behavior Laboratory. (1) Laboratory, four hours. Prerequisites: course 100 (may be taken concurrently). Life Sciences 1 or 7B. Introduction to research methods in ecology and behavior, resulting in independent research proposals and to gain understanding of scientific method, critical evaluation of research papers, and development of scientific writing skills. Works in and outside of campus. To apply this course to the Biology upper-division major laboratory requirement, the corresponding lecture course must be completed with a passing grade. Letter grading.

101. Marine Botany. (6) Lecture, four hours; laboratory, six hours; three to four field trips. Prerequisite: Life Sciences 1 or 7B. Introduction to biology and ecology of marine plants, including algae, sea grasses, and...
mangroves, with focus on form and function of marine plants and their ecological role in different marine habitats and ecosystems. Letter grading.


103. Plants, Diversity and Evolution. (5) Lecture, three hours; laboratory, three hours; field trip. Requisites: Life Sciences 1 and 4, or 7A and 7B. Introduction to plant species, their habitats, and their adaptations. Field trip to study plant diversity, evolution and adaptation of plants. Credit may not be applied to the Biology major. Letter grading.

104. Biology of Vertebrates. (5) Lecture, three hours; laboratory, three hours; four one- to two-day field trips. Requisite: Life Sciences 1 or 7B. Adaptations, behavior, physiology, morphology. Letter grading.

112. Ichthyology. (5) Lecture, three hours; laboratory, six hours; field trips. Requisite: Life Sciences 1 or 7B. Highly recommended: courses 110, 111. Biology of freshwater and marine fishes, with emphasis on their evolution, systematic, morphology, zoogeography, and ecology. Field trips to examine fishes of Southern California shoreline, tidepools, and coastal streams. Letter grading.

113A. Herpetology. (4) Lecture, three hours; discussion, one hour. Requisite: Life Sciences 1 or 7B. Recommended requisite: course 120. Exploration and summarization of evolution, ecology, life history, and conservation biology of world's reptile and amphibian fauna. Topics include conservation assessments both globally and in California, discussion sections focused on student-led critical evaluations of current literature, and individual research projects to share their professional experiences and job opportunities. Letter grading.

113AL. Herpetology Laboratory. (4) Laboratory, six hours; field trips. Corequisite: course 113A. Primary focus on learning and using bioinformatics and natural history of world's reptile and amphibian fauna. Field trips to observe living species in field, including one extended three-day field trip. Letter grading.

113B. Field Herpetology. (8) Requisite: Life Sciences 1. Recommended: courses 100, 111. Two weeks of off-campus research projects followed by two-week lecture course and offered only as part of Field Biology Quarter. Biology, particularly ecology and behavior, of reptiles and amphibians in their natural habitat. Students carry out supervised research projects, then write up and present their results in seminar fashion. Letter grading.

114A. Ornithology. (5) Lecture, three hours; laboratory/field trips, three hours. Requisite: Life Sciences 1 or 7B. Recommended: course 100. Systematics, distribution, physiology, behavior, and ecology of birds. Letter grading.

114B. Field Ornithology. (8) Requisite: Life Sciences 1. Recommended: course 100. Two to three weeks of off-campus research projects followed by lecture course and offered only as part of Field Biology Quarter. Primary focus on learning and using bioinformatics and natural history of world's reptile and amphibian fauna. Field trips to observe living species in field, including one extended three-day field trip. Letter grading.

115. Mammalogy. (5) Lecture, three hours; laboratory, three hours. Requisites: courses 100, 111 or 7B. Topics in mammalian biology, including evolution, ecology, behavior, functional morphology, systematics, physiology, and biogeography. Letter grading.

116. Conservation Biology. (4) Lecture, three hours; discussion, two hours. Requisite: Life Sciences 1 or 7B. Recommended: course 100. Not open for credit to students with credit for Environment 121. Study of ecological and evolutionary principles as they apply to preservation of genetic, species, and ecosystem diversity. Discussion sections focus on interactions of science, policy, and economics in conserving biodiversity. Oral and written student presentation on specific conservation issues. Letter grading.

117. Evolution of Vertebrates. (5) Lecture, three hours; laboratory, three hours. Requisite: course 110. Recommended: one general geology course. Fossil record of evolution of vertebrates, with emphasis on paleobiology and morphology of tetrapods. P/NP or letter grading.

118. Plant Adaptations. (8) Lecture, one hour; field trip, 10 hours. Requisite: course 100. Five-week course offered on ecological biology and evolution of plants. Field-oriented introduction to mechanisms by which vascular plants adapt themselves to their abiotic and biotic environments using community, population, and ecophysiological levels of integration. Letter grading.

119. Vertebrate Morphology. (6) Lecture, three hours; laboratory, five hours. Requisites: Life Sciences 1, 2, and 3, or 7A and 7B. Study of vertebrate morphology, function, and evolution from viewpoint of comparative anatomy of adult forms, biomechanics, development, and paleontology. Laboratory study of selected vertebrates. Letter grading.

C119A. Mathematical and Computational Modeling in Ecology. (4) Lecture, three hours; discussion, one hour. Requisite: Life Sciences 30B or Mathematics 3B or 31A. Recommended: courses 100, 122, Life Sciences 1 or 7B, Mathematics 3C. Introduction to modeling dynamics of ecological systems, including formulation and analysis of mathematical models, basic techniques of scientific programming, probability and stochastic modeling, and methods to relate models to ecological data. Examples will be taken from ecological and primate primate populations. No prerequisites other than the fundamental principles applicable throughout life and physical sciences. Concurrently scheduled with course C219A, P/NP or letter grading.

C119B. Modeling in Ecological Research. (4) Lecture, two hours; discussion, two hours. Requisite: recommended course C119A. Advanced techniques in mathematical and computational modeling of ecological dynamics and other population dynamic problems. Independent research projects developed by students. Topics include model formulation, stochastic models, fitting models to data, sensitivity analysis, uncertainty analysis of model results, and other topics from current literature. Concurrently scheduled with course C219B. P/NP or letter grading.

120. Evolution. (4) Lecture, three hours; discussion, two hours. Requisites: Life Sciences 1, 2, 3, 4, and 7A or 7B, 7C, and 23L or 31A or Life Sciences 30B. Not open for credit to students with credit for course 185. Designed for departmental majors specializing in environmental and evolutionary biology. Introduction to evolution, speciation, and processes of evolution, with emphasis on natural selection, population genetics, speciation, evolutionary rates, and patterns of adaptation. P/NP or letter grading.

121. Molecular Evolution. (4) Lecture, three hours; discussion, one hour. Requisites: Life Sciences 3, 4, and 23L, or 7A and 23L. Molecular biology, with emphasis on evolutionary aspects. DNA replication, RNA transcription, protein synthesis, gene expression, and molecular evolution. Letter grading.

122. Ecology. (4) Lecture, three hours; discussion, two hours. Requisites: course 100, Life Sciences 1 or 7B, Mathematics 3B or 31A or Life Sciences 30B. Highly recommended: Mathematics 31B, 32A. Designed for departmental majors specializing in environmental and population biology. Introduction to population and community ecology, with emphasis on both population and community dynamics, evolution and stability of populations, interactions between species, structure, dynamics, and functions of communities and ecosystems. P/NP or letter grading.

123A-123B. Field Marine Ecology. (4 or 8 each) Lecture, five hours; laboratory, 15 hours. Recommended requisites: courses 100, 122. Offered either as 4- or 8-unit five-week intensive course given off campus, as part of Marine Biology Quarter. Survey of current topics in marine ecology, including analysis of primary research literature combined with field study of ecology of marine organisms, populations, communities, and ecosystems. Original research projects required. Letter grading. 123A. In residence at research station located outside continental U.S. 123B, in residence at research station located within U.S., including Alaska and Hawaii. Letter grading.

124A-124B. Field Ecology. (4 or 8 each) Lecture, five hours; laboratory or field trip, 15 hours. Requisites: course 100, Life Sciences 1 or 7B. Recommended: courses 111, 120, 122. Offered as part of Field Biology Quarter. Field and laboratory research in ecology; collection, analysis, and write-up of numerical data, with emphasis on design and execution of field studies. Letter grading. 124A. In residence at research station located outside continental U.S. 124B. In residence at research station located within U.S., including Alaska and Hawaii, for part of or for duration of term. 124B. In residence at research station located within U.S., including Alaska and Hawaii, for part of or for duration of term.

125. Conservation in Practice. (4 or 8) Lecture, three hours; discussion, two hours. Requisites: course 100, Life Sciences 1 or 7B. Offered either as 4- or 8-unit quarter-long course or as 8-unit Field Ecology Quarter course. Animal conservation, major aspects of tropical vertebrate biology, and evolution of information processing systems. Eight-unit course covers same basic lecture material in five or six intensive weeks,
followed by extended field trips where students do individual projects. Concurrently scheduled with course C242. Letter grading.

M127. Soils and Environment. (4) [Same as Environment M102 and Geography M102.] Lecture, three hours; discussion, one hour; field trips. General treatment of soil and environmental implications: soil development, morphology, and worldwide distribution of soil orders; physical, chemical, hydrologic, and biological properties; water use, erosion, and pollution; management of soils related to plant growth and distribution. P/NP or letter grading.

M127L. Soils and Environment: Field. (1) [Same as Environment M102L and Geography M102L.] Laboratory, one hour; field trips. Corequisites: M127 and M127L. Investigations and demonstrations supporting material in course M127, including excavating, describing, and naming soils in field, soil forming processes, geomorphology, and soils. P/NP or letter grading.

128. Plant Physiological Ecology. (5) Lecture, three hours; laboratory, three hours; one two-day field trip. Requisites: R2 or R4, Physics 1C and 4BL or 5B or 6C. Study of plant/environment interactions under natural conditions. Transpiration and photosynthesis, leaf temperatures, and water movement in soil/plant/atmosphere continuum. Letter grading.

129. Animal Behavior. (4) Lecture, three hours; discussion, two hours. Requisites: course 100, Life Sciences 1 or 7B. Introduction to behavioral ecology. Methods and results of evolutionary approaches to study of animal behavior, including foraging strategies, social competition, sexual selection, mating systems, cooperation, and social organization. Letter grading.

130. Principles of Systematic Biology. (4) Lecture, three hours; discussion, two hours. Requisites: Life Sciences 1 or 7B. Diversity and adaptation, including cladistics, time and geographical distribution of species, and relationships among groups. P/NP or letter grading.

M131. Ecosystem Ecology. (4) [Same as Geography M110.] Lecture, three hours; field trips. Requisites: Geophysics 1 or Life Sciences 7B. Designed for juniors/seniors. Development of principles of ecosystem ecology, with focus on understanding links between ecosystem structure and function. Emphasis on energy and water balances, nutrient cycling, plant-soil-microbe interactions, landscape heterogeneity, and human disturbance - ecosystems. P/NP or letter grading.

132. Field Behavioral Ecology. (8) Lecture, two hours; laboratory/field trip, ten hours. Requisites: course 100, Life Sciences 1 or 7B. Recommended: course 129. Five-week course offered only as part of Field Biology Quarter. Field research in behavioral ecology, emphasizing animal communication. Design and execution of small-scale field projects during extended field trip. Letter grading.

133. Elements of Theoretical and Computational Biology. (4) Lecture, three hours; discussion, two hours. Requisites: Life Sciences 1, 2, 3, 4, 5BL, and 5B. Matrices 3C or 32A, 3C or 32B, and 31A or 31B, or Life Sciences 30B. Strongly recommended: elementary statistics course. Introduction of basic core mathematical ideas and models necessary to understand contemporary ecology and evolutionary biology. Population ecology and growth, community ecology, population genetics, natural selection, P/NP or letter grading.

134B. Field Physiological Ecology of Desert Animals. (8) Fieldwork, 15 hours. Requisite: Life Sciences 1 or 7B. Recommended: course 100. Two weeks of off-campus lecture course (four hours per day) and offered only as part of Field Biology Quarter. Consideration of physiological, behavioral, morphological, and ecological mechanisms desert animals use to enhance their survival. High Desert Field Laboratory. Letter grading.


136. Ecological Restoration. (6) Lecture, two and one half hours; laboratory, three hours; three field trips. Requisites: course 100, Life Sciences 1 or 7B. Study of ecological restoration as mediated by overseen or unsustainable extraction of natural resources, foundation of restoration ecology including historical knowledge, reference sites, soil preparation, biological policies. Emphasis on implementation of best practices for reclamation of degraded sites. Students carry out supervised research projects, then write up and orally present their results in terms of feasibility, letter grading.

137. Chemical Communication. (4) Lecture, three hours; discussion, one hour. Requisites: Chemistry 14A, 14B, 14BL, 14CL, 14DL, and 140, 20B, 20A, 30A, 30AL, and 30BL. Life Sciences 1, 2, 3, 23L. Chemical signals are most important means by which organisms communicate. Exploration of how chemical signals are produced, transported, and influence behavior of microbes, plants, and animals. Synthetic approach, with emphasis on applications to cell biology, physiology, and ecology. P/NP or letter grading.

M139. Introduction to Chemical Oceanography. (4) [Same as Atmospheric and Oceanic Sciences M105.] Lecture, three hours; discussion, one hour. Introduction to the fundamental principles of marine chemistry and engineering interests of oceanic environment. Chemical composition of oceans and nature of physical, chemical, and biological processes governing this composition in past and present. Emphasis on major and minor oceanic constituents, with focus on those that are most important for life (i.e., carbon, nitrogen, phosphorus, silicon, and oxygen). Investigation of primary production, export productivity, remineralization, dia-gensis, air-sea gas exchange processes. Letter grading.

142. Aquatic Communities. (4) Lecture, three hours; discussion, one hour. Requisite: Life Sciences 1 or 7B. Overview of species and communities in marine and freshwater environments. Exploration of interactions of physical and biological factors that shape communities and how scientists test hypotheses. Emphasis on understanding how aquatic organisms adapt to and respond to environmental gradients and changes. Laboratory, one hour; two-hour computer laboratory. Letter grading.

144. Prehistoric California. (5) Lecture, three hours; laboratory, three hours; field trips. Requisite: Life Sciences 1 or 7B. Recommended: course 100. Survey of the history of the human's adaptation and evolution in California. Examination of major groups of organisms from oceans and on land that can be found in fossil record of California. Emphasis on how faunas have changed over time, especially during periods of diversification and extinction. Influence of major events of geological, climatic, and environmental change on living organisms related to environmental change on human timescales. Emphasis on how scientists collect and evaluate fossil data through understanding of living organisms. Letter grading.

M145. Advanced Paleontology. (4) [Same as Earth, Planetary, and Space Sciences M118.] Lecture, three hours; discussion, one hour; Earth, Planetary, and Space Sciences M116. Consideration of major factors that have influenced history of life, including analytical approaches to analyzing patterns in fossil record, nature of rock record, and contribution of data from other sciences, like paleoecology, paleogeography, and molecular paleontology, and developmental biology. P/NP or letter grading.

147. Biological Oceanography (4) Five-week intensive course. Lecture, five hours; laboratory, 15 hours. Requisites: Chemistry 14A, 14B, and 14BL, or 20A, 20B, 20L, and 30AL. Life Sciences 1, 3, 23L. Lectures include physical, chemical, and biological factors affecting abundance and distribution of organisms in marine environment. Laboratory includes experimental studies of local marine organisms, with emphasis on primary and secondary production and nutrient flux. Letter grading.


151A. Tropical Ecology. (4) Lecture, one hour; discussion, two hours. Requisites: course 100, Life Sciences 1 or 7B. Broad introduction to biodiversity, community structure, and dynamics and ecosystem function of range of tropical forest habitats. Discussion of such themes as biogeography, forest structure, plant growth forms, animal communities, and tropical diversity, climate, and disturbance regimes. P/NP or letter grading.

151B. Field Tropical Ecology. (8) Lecture, three hours; fieldwork, five hours. Requisites: course 100, Life Sciences 1 or 7B. Two weeks off-campus research projects followed by two-week lecture course and offered only as part of Field Biology Quarter. Introduction to biodiversity, community structure, and dynamics and ecosystem function in tropical forest habitat. Letter grading.

152. World Vegetation Ecology and Ecophysiology. (4) Lecture, three hours; discussion, one hour. Requisite: Life Sciences 1 or 7B. Diversity of physiological and ecophysiological adaptations of terrestrial plants to world, exploring distribution and dynamics of world vegetation types. Focus on processes across scales from cells to ecosystem to globe, instrumentation for environments 1 or 7B. Recommended: course 100. Introductions used to make discoveries about plant adaptation. Letter grading.

153. Physics and Chemistry of Biotic Environments. (4) Lecture, three hours; discussion, two hours. Requisites: Life Sciences 1 or 7B. Study of organisms that are critical to functional responses by organisms to their habitats. Focus is integrative, providing comprehensive training in basic sciences of physics and chemistry as applied to environmental processes, and subsequently to adaptations of individual performance, populations, and communities. Covers variety of topics in applied chemistry, including proton pumps, carbon dioxide biochemistry and environmental chemistry, and metabolism and effects of temperature on physiological function. Fundamentals of boundary-layer physics and their role in organisms' life history. Physics as natural selection process, including how organisms are mechanically structured to avoid, resist, or comply to fluid (air and water) motion. P/NP or letter grading.

154. California Ecosystems. (5) Lecture, three hours; laboratory, five hours. Requisites: Life Sciences 1 or 7B. Recommended: course 100. Introduction to structure, biodiversity, and dynamics of Cali-
forria ecosystems, with a focus on Southern California, and impact of human activities on these systems. P/NP or letter grading.

155. Community Ecology. (4) Lecture, three hours; discussion, one hour. Requisite: Life Sciences 1 or 7B. Recommended: courses 124 or 122. Community ecology is the study of biodiversity in ecological communities, including organization and composition of communities, structure and dynamics of natural species assemblages in space and time, and ecological and evolutionary mechanisms that determine which species are present and how they interact within assemblages. Examination of existing theories of community organization and evidence, both observational and experimental, bearing on these considerations. Discussion of dysregulation of assemblages of plant, animal, microbial, terrestrial, and marine—giving appreciation of extraordinary natural history and diversity of life on Earth as it exists in its living ecological context. Discussion of how ecological communities are responding now and will respond in future to anticipated global change, and conservation implications of these changes. Letter grading.

156. Biology and Social Justice. (4) Lecture, four hours. Consideration of intersection of biological discovery and human society to better understand how scientific advances have both promoted and marginalized social inequity. P/NP or letter grading.

M157. Biology of Superheroes: Exploring Limits of Form and Function. (4) (Same as Society and Genetics M157.) Lecture, four hours; discussion, one hour. Requisites: Life Sciences 1 and 4, or 7A and 7B. Combines popular graphic novel stories, movies, and television with primary scientific literature to explore bizarre phenomena in natural world and delve into basic scientific theory and principles. Topics covered include evolution, genetics, physiology, biomechanics, brain-machine interfacing, and artificial intelligence among others. Students synthesize primary literature on diverse subjects presented. Letter grading.

158. Introduction to Diversity, Health Disparities, and Environment. (2) Seminar, one hour; discussion, one hour. Requisite: Life Sciences 7B. Focus on intersection of health disparities and environment. Seminar includes guest lecturers focused on environmental determinants of health, and panel discussions focused on careers addressing health disparities. Discussion where students deconstruct research that talks to better understand scientific and how research on health disparities is conducted. Entry course for three-quarter UCLA-Howard Hughes Medical Institute Health Disparities program. Letter grading.

M159. Biological Modeling: Mathematical and Computational Approaches. (5) (Same as Computational and Systems Biology M150.) Lecture, four hours; laboratory, three hours. Requisites: Life Sciences 7B, 109, 109L, Chemistry 14A, 14B, or 14BL, or 7A, 7B, and 23L. Five-week intensive course offered only as part of Marine Biology Quarter. Survey of vertebrate and invertebrate morphology, systematics, ecology, and behavior of local marine birds and mammals. Given off campus at marine science center. Letter grading.

164. Field Biology of Marine Fishes. (4) Lecture, five hours; laboratory, fifteen hours. Requisite: Life Sciences 1. Recommended: Mathematics 3A, 3B, 3C. Five-week intensive course offered only as part of Marine Biology Quarter. Introduction to physiological adaptations of marine vertebrates to major physiochemical variables in world oceans and to major marine habitats. Given off campus at marine science center. P/NP or letter grading.

165. Ecological Physiology of Marine Vertebrates. (4) Lecture, five hours; laboratory, fifteen hours. Requisites: Chemistry 14B, 14BL, or 20B and 30AL, Life Sciences 1, 3, 23L. Recommended: Life Sciences 30B or Mathematics 3C or 32A, and Physics 1C and 4BL, or 5B or 6C or 6CH. Five-week intensive course offered only as part of Marine Biology Quarter. Introduction to physiological adaptations of marine vertebrates to major physiochemical variables in world oceans and to major marine habitats. Given off campus at marine science center. Letter grading.

166. Biology of Marine-Land Interface. (4) Lecture, five hours; fieldwork, fifteen hours. Enforced requisites: courses 109, 109L, Chemistry 14A, 14B, 14BL or 20A, 20B, 20L, Life Sciences 1, Physics 6A, Statistics 13. Recommended: Life Sciences 1, 3, 23L. Life on land and sea interfaces is one of most biologically rich, yet challenging habitats on Earth. Organisms must contend with wide range of environmental conditions, including extreme variation in temperature, ultraviolet radiation, osmotic stress, and water availability. These habitats are among best natural laboratories for investigating patterns and processes of organism-environment interactions. Course must in characterizations of physical and chemical environmental features to establish basic tenets of organismal performance, as well as population and community dynamics in response to extreme environmental challenges. Foraging of critical new linkages between chemistry, physics, and biology through lecture, laboratory, and field investigations. Offered as part of Marine Biology Quarter. Letter grading.

170. Animal Environmental Physiology. (6) Lecture, three hours; laboratory, six hours. Requisites: Chemistry 14D, or 30B and 30BL, Life Sciences 1, 2, 3, 3B, 3C, 7A, 7B, 7C, Chemistry 130B or Mathematics 3C or 32A, Physics 1C and 4BL, or 5B or 6C or 6CH. Not open for credit to students with credit for Physiological Science 166. Designed for Ecology, Evolutionary Biology, and Marine Biology majors. Focus on physiological (function) of animal organs and organ systems, with emphasis on environmental interactions and ecological adaptations. Letter grading.

171. Coming of Age on Planet Earth. (4) Lecture, three hours; discussion, one hour. Across phylogenetically broad range of species, individuals in same developmental stage of life share vulnerabilities and similar endocrinological and behavioral traits. Consideration of why tree of life is essential to understanding patterns of biological diversity and how phylogenetic comparative methods are used to test macroevolutionary hypotheses. Concurrently scheduled with course C202. P/NP or letter grading.

CM173. Earth Process and Evolutionary History. (8) (Same as Earth, Planetary, and Space Sciences CM173.) Lecture, four hours; laboratory, three hours. Enforced Requisite: Life Sciences 40 or Statistics 10 or 13. Overview of understanding of geological history of Earth and the solar system. Emphasis on diverse approaches to understanding of geologic processes such as tectonics, climate history, the origin of life, and how biodiversity and ecosystems have evolved. Consideration of intersection of biological diversity and environmental change. Letter grading.
females and males are in conflict over reproductive decisions, with focus on animals with human examples as appropriate. Emphasis on natural selection thinking, sexual selection, and origins of sexual conflict, including Fisherian sex allocation, evolution of manipulation through deceptive communication, and theory of Darwinian sexual conflict. Letter grading.

176. Ecological Ethics. (4) Seminar, four hours. Requi- site: Life Sciences 1 or 7B. Debates and discussions on current ethical considerations relevant to fields of ecology, evolution, conservation, and behavior. Letter grading.

C177. Practical Computing for Evolutionary Biolo- gists and Ecologists. (4) Lecture, three hours; labo- ratory, one hour. Life Sciences 7B. Introduction to fundamental skills needed for manipulation, analysis, and visualization of large data sets. Basic programming and scripting in Python as well as word processing and spreadsheet programs. Concurrently scheduled with course C234. Letter grading.

M178. Computational Systems Biology: Modeling and Simulation of Biological Systems. (5) Same as Bioengineering 162B, Computer and Systems Biology M186, and Computer Science CM186.) Lecture, four hours; laboratory, three hours; outside study, eight hours. Dynamic biosystems modeling and computer and computational methods for studying biological/ medical processes and systems at multiple levels of organization. Control system, multicompartmental, predator-prey, pharmacokinetic (PK), pharmacody- namic, population model and system models, structural modeling methods applied to life sciences problems at molecular, cellular (biochemical pathways/networks), organ, and organ- ism levels. Both theory- and data-driven modeling, with focus on translating modeling goals and data into mathematics models and implementing them for simulation and analysis. Basics of numerical simulation algorithms, with modeling software exercises in class at the discretion of the instructor. Letter grading.

C179. Communicating Science to Informal Audi-ences. (5) Lecture, three hours; discussion, one hour; laboratory or fieldwork, two hours. Requisite: one course from 25, Atmospheric and Oceanic Sci- ences M10, Chemistry 2, 1A4, 20A, Earth, Planetary, and Space Sciences 1, 15, Environment M10, Life Sci- ences 1, or 7B. Designed for juniors/seniors. Com- bined instruction in inquiry-based teaching methods and learning pedagogy, with six weeks of supervised teaching experience at Santa Monica Pier Aquarium. Students practice communicating scientific knowl- edge and skill in an informal environment in weekly presentations to develop ocean science literacy at all levels and to encourage broad public understanding of science and environmental stewardship. Need for young adults to communicate about their science to audiences is especially critical when considering that Americans are expected to compre- hend and respond to increasingly complex issues, such as global climate change, with limited understanding of how natural world works. Concurrently scheduled with course C237. Letter grading.

180A-180B. Seminars: Biology and Society. (2–4) Seminar, two hours (course 180A) and four hours (course 180B). Enforced corequisite: current literature in field and discussion of current socially important issues involving substantial bio- logical considerations, either or both as background for policy and as consequences of policy. May be re- peated once for credit with instructor change. Letter grading.


182. Marine Parasitology. (4) Lecture, five hours; labo- ratory, five hours. Life Sciences 1 or Recommended: courses 112, 181. Five-week intensive course offered only as part of Marine Biology Quarterly. Introduction to natural history and ecology of host-parasite interaction involving intertidal or host. Laboratory includes collection and preparation tech- niques, given off-campus at marine science center. Letter grading.

183. Finding Ecological Solutions to Environmental Problems. (4) Seminar, two hours; discussion, two and one half hours. Requisite: course 100. Ecological practicum in which students work in teams with client (e.g., non-profit, governmental) to research and pro- pose solutions to diverse ecological problems. Stu- dents learn practical skills to apply ecological science to solving of diverse and interdisciplinary environ- mental problems, in intimate and participatory envi- ronment. Students develop high-quality academic work at professional level. Letter grading.

184. Evolution, Development, and Disease. (4) Lec- ture, three hours; laboratory, two hours. Requisite: Life Sciences 7B. Recommended requisite: course 103, 110, 120, M157, C174, or 185. Exploration of develop- mental mechanisms underlying evolution of animal design, including impacts of environment on these mechanisms. Exploration of what happens to animal form, including that of humans, when these develop- mental mechanisms are disrupted by environmental and genetic factors. Letter grading.

185. Variable Topics in Ecology and Evolutionary Biology. (4) Lecture, two and one half hours; discussion, one hour. Requisite: Life Sci- ences 1 or 7B. Not open for credit to students with credit for course 120. Designed for departmental ma- jors specializing in population and evolution biol- ogy and in medicine. Introduction to mechanics and processes of evolution, with emphasis on natural se- lection, population genetics, speciation, evolutionary rates, and patterns. Coverage of funda- mental principles of evolution, with special focus on medicine and human health. P/NP or letter grading.

186. Evolutionary Medicine: Clinical Perspective on Medical, Surgical, and Psychiatric Disorders. (4) Lecture, three hours; discussion, one hour. From breast cancer and heart failure to self-injury, obses- sive-compulsive and eating disorders, all contempo- rary medical issues have evolutionary roots. Under- standing the application of evolutionary thought to is- sues faced by physicians, veterinarians, psychologists, and other healthcare providers. Devel- opment of awareness and understanding of evolu- tionary roots of these disorders provides future health- care providers with expanded perspective that en- hances their practice and benefits their patients in whatever field they enter. Letter grading.

187. Variable Topics in Ecology and Evolutionary Biology. (4) Lecture, three hours; discussion, one hour. Requisites: Life Sciences 1, 2, 3, 4, 23L. Investi- gation, discussion, and study of current important is- sues in ecology and evolutionary biology. Contact Undergraduate Advising Office for current topics. May be re- peated for credit. P/NP or letter grading.

188. Special Courses in Ecology and Evolutionary Biology. (1) Seminar, two hours. Enforced corequisite: current literature in field of students’ own research. May be repeated for credit. P/NP or letter grading.

188A. Individual Studies for USIE Facilitators. (1) Tutorial, to be arranged. Enforced corequisite: Honors Colloquium 101E. Limited to junior/senior USIE facilita- tors. Individual study in regularly scheduled meetings with faculty mentor to discuss selected USIE seminar topics and internship. Contact USIE Office for more information. May be repeated as adjunct to upper-division lecture course. In- dividual contract required. P/NP grading.

188B. Individual Studies for USIE Facilitators. (1) Seminar, two hours. Enforced corequisite: Honors Colloquium 101E. Limited to junior/senior USIE facilita- tors. Individual study in regularly scheduled meetings with faculty mentor to discuss selected USIE seminar topics and internship. Contact USIE Office for more information. May be repeated as adjunct to upper-division lecture course. In- dividual contract required. P/NP grading.

188C. Individual Studies for USIE Facilitators. (2) Tutorial, to be arranged. Enforced requisite: course 188B. Limited to student who is a member of a regular research group or internship. Individual study in regularly scheduled meetings with fac- ulty mentor while fulfilling USIE 88S course. Indi- vidual contract with faculty mentor required. May be repeated. Letter grading.

188D. Individual Studies for USIE Facilitators. (4) Tutorial, to be arranged. Enforced requisite: course 188C. Limited to student who is a member of a regular research group or internship. Individual study in regularly scheduled meetings with fac- ulty mentor while fulfilling USIE 88S course. Indi- vidual contract with faculty mentor required. May be repeated. Letter grading.

188E. Individual Studies for USIE Facilitators. (1) Seminar, two hours. Limited to students who have petitioned for and been granted permission to conduct research careers. Individual study in regularly scheduled meetings with faculty mentor while fulfilling USIE 88S course. Indi- vidual contract with faculty mentor required. May be repeated. Letter grading.
196. Research Apprenticeship in Ecology and Evolutionary Biology. (2 to 4) Tutorial, three hours per week. Limited to juniors/seniors. Entry-level research apprenticeship for upper-division students under guidance of faculty mentor. May be repeated for credit. Individual contract required. P/NP or letter grading.

198A–198D. Honors Research in Ecology and Evolutionary Biology. (4 each) Tutorial, 12 hours. Limited to juniors/seniors. Supervised individual research designed to broaden and deepen students’ knowledge of some phase of biology. Must be taken with Ecology and Evolutionary Biology Department faculty for at least 9 units and for a total of at least 12 units. Eight units may be applied toward departmental majors. Individual contract required. In Progress (198A) and letter (198B) grading. Students may elect to enroll in additional research through courses 198C and 198D (letter grading). Report on progress must be presented to undergraduate adviser each term 198 course is taken.

199. Directed Research in Ecology and Evolutionary Biology. (2 to 4) Tutorial, six to 12 hours. Preparation: submission of written proposal outlining study or research to be undertaken. Studies to involve laboratory or field-related research, not literature surveys or library research. Research project developed in consultation with instructor and submitted for approval to undergraduate adviser before instruction begins in that term. Limited to juniors/seniors. Supervised individual research of faculty design, one to two units at end of term culminating report describing progress of study or research and signed by student and instructor must be presented to undergraduate adviser. Only one such course may be applied toward departmental majors. May be repeated for credit. Individual contract required. Letter grading.

Graduate Courses

M200A. Evolutionary Biology. (4) (Same as Earth, Planetary, and Space Sciences M216.) Lecture, two hours; discussion, one hour. Requisites: course C219A. Current concepts and topics in evolutionary biology, including microevolution, speciation and species concepts, analytical biogeography, adaptive radiation, mass extinction, community evolution, molecular evolution, and development of evolutionary thought. S/U or letter grading.

200B. Ecology. (4) Lecture, two hours; discussion, two hours. Topics and principles in current topics in ecology. Topics may include island biogeography, disturbance ecology, community ecology, and physiological ecology. S/U or letter grading.

200C. Advanced Animal Behavior. (4) Lecture, two hours; discussion, two hours. Survey of major topics in field of animal behavior, including topics related to evolution of behavior such as signaling, learning, and memory. S/U or letter grading.

201. Introduction to R for Ecology and Evolutionary Biology. (4) Lecture, six hours; discussion, six hours. Lecture, six hours. Designated for departmental PhD students. Offered as intensive two-day course at beginning of term. Introduction to R language. Topics include working at command line, writing scripts and functions, flow control, graphics, and conducting basic simulations in discrete and continuous time. S/U grading.

C202. Advanced Statistics in Ecology and Evolutionary Biology. (4) Lecture, two hours; laboratory, two hours. Lecture, two hours. Introduction to advanced statistical methods and model comparison and mean comparison, including bootstrapping, permutation, Bayesian, statistics, mixed models, clustering, and network analysis. At course end students should be able to explain which statistical approaches are appropriate for different types of research questions and evaluate their outputs. All statistical analysis conducted in R. Concurrently scheduled with course C172. S/U or letter grading.

203. Marine Botany and Physiology. (4) Lecture, two hours; discussion, one hour; laboratory, six hours; experimental project. Designed for graduate students. Structure, reproduction, life histories, and biology of marine algae, with emphasis on physiological ecology and biotechnology. Ten-week intensive course in culture and physiological, ecological, and biochemical investigation of algae. Given off campus at marine science center. S/U or letter grading.

204. Advanced Biology of Algae. (4) Lecture, four hours; discussion, one hour. Consideration of current research in experimental phycolgy. Topics include discussion of appropriate aspects of chemical and physical oceanography and limnology; algal physiology; biochemistry; phycolgy; and algal processes in ocean and freshwater habitats. S/U or letter grading.

205. Marine Invertebrate Biology. (4) Lecture, four hours; discussion, one hour. Functional morphology, life histories, and systematics of marine invertebrates of all major and most minor taxa; emphasis on living animal and its habitat. Given off campus at marine science center. S/U or letter grading.

206. Advanced Ichthyology. (4) Lecture, three hours; laboratory, three hours. Requisite: course 111 or 112. Advanced study of various aspects of fish biology. Theme varies from year to year. May be repeated for credit. S/U or letter grading.

208. Advanced Vertebrate Morphology. (4) Lecture, two hours; laboratory, eight hours. Requisite: course 110. Emphasis on functional approach to evolution of vertebrate locomotor, feeding, and circulatory systems. Laboratory includes comparative and experimental analyses of morphological adaptation. Independent project required. May be repeated once for credit. S/U or letter grading.

209. Behavior of Arthropods. (4) Lecture, three hours; discussion, one hour. Advanced study of topics in behavior of terrestrial arthropods, including communication, feeding, reproductive, and social behavior. Emphasis on both mechanistic and adaptive approaches toward understanding behavior. Independent project required. S/U or letter grading.

210. Advanced Ornithology. (4) Lecture, two hours; laboratory, two hours; fieldwork, two hours. Requisite: course 114A. Advanced study of topics in modern avian biology. Emphasis on experimental approaches to investigations of physiology (energetics, nutrition, osmoregulation), ecology (population and community organization), and behavior (foraging, breeding, sociality). S/U or letter grading.

217. Marine Ecology. (4) Lecture, four hours; discussion, one hour. Designed for graduate students. Structure, diversity, and energetics of marine communities; behavior and communication in culture; population and life history. Given off campus at marine science center. S/U or letter grading.


C219A. Mathematical and Computational Modeling in Ecology and Evolutionary Biology. (4) Lecture, two hours; discussion, one hour. Requisite: Life Sciences 30B or Mathematics 3B or 31A. Recommended: courses 100, 122, Life Sciences 1 or 7B, Mathematics 3C. Introduction to modeling dynamics of populations. Formulation and application of mathematical models, basic techniques of scientific programming, probability and stochastic modeling, and methods to relate models to data. Examples from current literature. Herbert Edelsbrunner, 2019. "Modeling and simulation methods appropriate throughout life and physical sciences.

C219B. Modeling in Ecological Research. (4) Lecture, two hours; discussion, two hours. Recommended requisite: course C219A. Advanced techniques in mathematical modeling and computer simulation of ecological dynamics and other population dynamic problems. Independent research projects developed by students. Topics include model formulation, stochastic models, fitting models to data, sensitivity analysis, presentation of model results, and other topics from current literature. Concurrently scheduled with course C119B, S/U or letter grading.

220. Conservation Science: Theory and Practice. (3) Lecture, three hours. Limited to graduate students. Conceptual foundations of conservation science and its applications to real-world conservation problems. Introduces students to the tools and techniques researchers and managers use to understand and estimate species populations. Emphasis on the analytical challenges of dealing with small populations and the ethical and societal implications of different management strategies. May be repeated for credit. S/U grading.

224. Marine Molecular Biology. (8) Lecture, three hours; laboratory, eight hours. Preparation: training in molecular biology and biochemistry. Ten-week intensive course designed to train marine biologists in advanced techniques of cell and molecular biology and to familiarize students with some of the most exciting and pressing issues in marine conservation. S/U grading.

CM226. Global Health Measures for Biological Emergencies. (4) (Same as Epidemiology M226.) Lecture, four hours; discussion, one hour. Requisite: Epidemiology 220. Mitigation of bioterrorism falls outside traditional public health programs and public health graduate education. Because of seriousness of such threats, it is important that individuals trained in public health understand problems and responses. Letter grading.

CM228. Earth Process and Evolutionary History. (8) (Same as Earth, Planetary, and Space Sciences CM273.) Lecture, four hours; laboratory, three hours. Preparation: training in molecular biology and biochemistry. Ten-week intensive course designed to train marine biologists in advanced techniques of cell and molecular biology and to familiarize students with some of the most exciting and pressing issues in marine conservation. S/U grading.

C230. Comparative Biology and Macroevolution. (4) Lecture, three hours; laboratory, three hours. Requisites: Life Sciences 1 or 7B. Recommended: one introductory statistics course. Modern comparative biology provides framework for studying broad questions in evolution—How do body shapes evolve? What are dynamics of evolutionary arms races? Why are there so many species in tropics? Why are there so many beetles and so few crocodiles? Did dinosaurs put brakes on diversification of mammals? Examination of why life is so vast in diversity and so complex.
theory, quantitative genetics and phenotypic evolution, and advances made in field in last decade. May be repeated for credit. Letter grading.

233. UCLA/La Kretz Workshop in Conservation Geonmics. (2) Lecture; two hours; discussion, one hour; laboratory, two hours. Five-day field experience at La Kretz Ranch, Santa Monica Mountains. Conservation biology and genetics have had long and intimate relationship and constitute one key application of evolutionary analysis to real-world biogeographic processes. Population ge- netics, phylogenetics, and phylogeography have been particularly striking for conservation biology and have helped solve some of most pressing problems in biolo- gical conservation. Annual workshop to provide training environment for small group of motivated graduate students to explore how conservation prob- lems can best be addressed with genomic-level data.

Hands-on experience on efficient collection, trouble- shooting, and analysis of large datasets for conserva- tion-relevant problems. Active participation from members of several U.S. government agencies at forefront of endangered species protection and man- agement, providing forum for exploring relevant as- pects of conservation genomics to managers. S/U grading.

C234. Practical Computing for Evolutionary Biologists and Ecologists. (4) Lecture; three hours; labora- tory, two hours. Requisite: Life Sciences 1 or 7B. In- troduction to fundamental skills needed for manipula- tion, analysis, and visualization of large datasets. Basic programming and scripting in Python as well as working in shell, regular expressions, and related topics. Concurrently scheduled with course C177. Letter grading.


237. Communicating Science to Informal Audiences. (5) Lecture; three hours; discussion, one hour; laboratory or fieldwork, two hours. Requisite: one course from course 25, Atmospheric and Oceanic Sciences 6, 7, 10, 12, 20A, 20B, Earth, Planet and Space Sciences 1, 15, Environmental M10, Life Sci- ences 1, or 7B. Designed for juniors/seniors. Com- bined instruction in inquiry-based teaching methods and lecture teaching experience in six weeks of supervised teaching experience at Santa Monica Pier Aquarium. Students practice communicating scientific knowl- edge and receive mentoring on how to improve their presentations to develop ocean science literacy at all levels and to encourage broad public understanding of science and environmental stewardship. Need for young scientists to learn how to communicate about their science to audiences outside of their immediate research science is especially critical when considering that Americans are expected to com- prehend and respond to increasingly complex issues, such as global climate change, with limited under- standing of how the world works. Concurrently scheduled with course C179. Letter grading.

M238. Ocean Biogeochemical Dynamics and Climate. (4) (Same as Atmospheric and Oceanic Sciences M235.) Lecture; three hours. Interaction of oceanic biogeochemical cycles with physical climate system. Biogeochemical processes controlling carbon dioxide and oxygen in oceans and atmosphere over time-scales from few million years to several years. Anthropogenic perturbation of global carbon cycle and climate. Response of ocean ecosystems to past and future global changes. Use of isotope studies to study ocean biogeochemical cycles and climate. Interac- tions between biogeochemical cycles on land and in ocean. S/U or letter grading.

240. Physiology of Marine Animals. (4) Lecture; four hours; discussion, one hour. Designed for graduate students. Lecture and laboratory studies on cellular, tissue, organ, and animal physiology; regulatory bi- ology; metabolic characteristics of cells, energy trans- formations. Gain experience at marine science center. S/U or letter grading.

C242. Behavioral Ecology. (4) Lecture; three hours; discussion, two hours. Requisites: course 100, Life Sciences 1 or 7B, Mathematics 3C or 32A or Life Scie- nces 1, or 7B. Evolutionary perspective of behavioral ecology, with extended con- sideration of selfish DNA, conflict with genomes, nat- ural selection among kin, selection of heterogeneity and diversity in group functioning and cooperation, social learning, game theory and alternative life histories, and human behavioral ecology. Concurrently sched- uled with course C126. Letter grading.

243. Animal Communication. (4) Lecture; three hours; discussion, one hour. Requisites: Mathematics 3C or 32A, and Physics 1C and 4BL, or 6C or 6CH. Physical properties of animal signals and physiological mechanisms underlying their generation and recep- tion. Lectures treat signal analysis, signal transmis- sion, and receptor design in light of constraints placed on each sensory modality. Examples of communica- tion systems include auditory, chemical, electro- neric, and magnetic cues, with emphasis on biological adaptations for efficiently signaling species-specific information. S/U or letter grading.

244. Advanced Insect Physiology. (4) Lecture; two hours; discussion, one hour. Detailed discussion of current problems in insect physiology, with advanced laboratory. S/U or letter grading.

247. Advanced Plant Biology. (4) Lecture; three hours; discussion, one hour. Requisite: course 162 or Molecular, Cell, and Developmental Biology C141. Students to undertake and present with consent of instructor. Designed to expose first-year graduate students to topics of current interest in plant biology. Subjects in- clude plant gene expression and development, organ- ellar structure, development and function, and plant- specific metabolic processes (photosynthesis, nitr- ogen fixation, metabolism of small molecules). S/U or letter grading.

250. Professional Skills for Biological Research. (2 to 3) Seminar; two hours. Preparation, writing, and submission of research proposals. Scheduling and maintenance of oral and laboratory data, preparation of scientific presentations, review of literature, and publishing strategies. Optional field trip offered during some years for 1 extra unit. S/U or letter grading.

251. Seminar: Systematics. (2) Seminar, two to four hours. Requisite: course 162. Students practice communicating scientific knowl- edge and receive mentoring on how to improve their presentations to develop ocean science literacy at all levels and to encourage broad public understanding of science and environmental stewardship. Need for young scientists to learn how to communicate about their science to audiences outside of their immediate research science is especially critical when considering that Americans are expected to com- prehend and respond to increasingly complex issues, such as global climate change, with limited under- standing of how the world works. Concurrently scheduled with course C179. Letter grading.

255. Seminar: Invertebrate Zoology. (2) Seminar, two hours. S/U or letter grading.

259. Seminar: Herpetology. (2) Seminar, three hours. Seminar on current approaches to herpetology. Main theme varies from year to year. Themes may include in- phylgenetic methodology, interaction between de- velopment and evolution; biogeography, climate change, and faunal evolution; dispersal mechanisms and macroevolutionary patterns; adaptation and dis- versification; macroevolutionary patterns in fossil re- cord. S/U or letter grading.


261. Molecular Ecology of Plant Populations. (2) Seminar, two hours. Requisite: course M200A. In- tegration of ecological, population genetic, and evolu- tionary concepts to understand evolutionary ecology of plants, with emphasis on plant and environmental adaptations, and conservation of plant populations and natural and disturbed settings, with application to both terrestrial and marine systems. Letter grading.

263. Seminar: Population Genetics. (2 or 4) Sem- inar, three to six hours. Seminar on topics of current interest in population genetics, such as kin selection, sociobiology, cultural evolution, conservation ge- netics, etc. S/U or letter grading.

264. Seminar: Stomatal Function. (4) Seminar, two hours; discussion, two hours. Open to undergraduates with consent of instructor. Structure and function of guard cells; gas exchange; environmental and hor- monal regulation of stomatal responses; sensory transduction; stomatal adaptations. S/U or letter grading.


266. Seminar: Current Topics in Evolutionary Ecol- ogy. (2) Seminar, two hours. S/U or letter grading.


269. Seminar: Animal Ecology. (2) Seminar, three hours. Advanced study of specific topics in animal ecology and related fields. Main theme varies from year to year, but usually emphasizes areas such as behavior, ecology, and evolution. S/U grading.

270. Seminar: Environmental Physiology. (2) Sem- inar, two hours. S/U or letter grading.


273. Seminar: Entomology. (2) Seminar, two hours. Discussion of specific topics in entomology and re- lated fields. Main theme varies from year to year, but usually emphasizes areas such as behavior, ecology, and evolution. S/U grading.


279. Seminar: Evolutionary Biology. (2) Seminar, two hours. Requisite: course M231. Emphasis on par- ticular issue in evolutionary biology, varying in topic whenever offered. Topics may include advances in phylogenetic methodology, relation between de- velopment and evolution; biogeography, climate change, and faunal evolution; dispersal mechanisms and macroevolutionary patterns; adaptation and dis- versification; macroevolutionary patterns in fossil re- cord. S/U or letter grading.

282. Seminar: Ichthyology. (2) Seminar, two hours. Requisite: course 111 or 112. Student presentations and discussion of specific topics in ichthyology. Theme varies from year to year. May be repeated for credit. S/U or letter grading.

M286. Seminar: Statistical Problem Solving for Population Biology. (2 or 3) Seminar, two hours. Designed for graduate students. Statistical solutions to complex data analysis and/or experimental design problems encountered by biology graduate students in their own research. S/U or letter grading.


M290. Seminar: Comparative Physiology. (2) (Same as Physiological Science M290.) Seminar, two and one half hours. Discussion of specific topics in compara- tive physiology of animals. Topics vary from year to year, with emphasis on systems physiology, neu- rophysiology, or behavioral physiology. S/U or letter grading.

291. Seminar: Physiology and Biochemistry of Ar- thropods. (2) Seminar, two hours. S/U or letter grading.

296. Seminar: Ecology and Evolutionary Biology. (1 to 4) Seminar, three hours. Advanced study and analy- sis of current topics in cellular, organismal, and popu- lation biology. Discussion of current research and liter- ature in research specialities and faculty member teaching course. S/U or letter grading.

297. Selected Topics in Ecology and Evolutionary Biology. (1 to 4) Seminar, one to three hours. Adv- anced study and analysis of variable research topics in current issues in ecology and evolutionary biology. Consult Schedule of Classes for topics and instruc- tors. May be repeated for credit with consent of in- structor. S/U or letter grading.
399. Seminar: Parasitology. (2) Seminar, two hours. S/U or letter grading.
375. Teaching Apprentice Practicum. (1 to 4) Seminar, to be arranged. Designed for graduate students. Study of problems and methodologies in teaching biology, which includes workshops, seminars, apprentice teaching, and peer observation. S/U grading.
496. Preparation for Teaching Biology in Higher Education. (2) Lecture, two hours. Designed for graduate students. Strongly recommended as sequel to S/U grading.
495. Preparation for Teaching Biology in Higher Education. (2) Seminar, to be arranged. Given off campus at marine science center. S/U or letter grading.
596. Directed Individual (or Tutorial) Studies. (2 to 12) Tutorial, to be arranged. Letter grading.
596F. Directed Individual (or Tutorial) Studies. (2 to 8) Tutorial, to be arranged. Given off campus at marine science center. S/U or letter grading.
597. Preparation for MA Comprehensive Examination or PhD Qualifying Examinations. (2 to 12) Tutorial, to be arranged. May not be applied toward MA or PhD course requirements. S/U grading.
598. MA Thesis Research and Writing. (2 to 12) Tutorial, to be arranged. S/U grading.

ECONOMICS

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Suile Oszlak, PhD

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Shuyang Sheng, PhD
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Adjunct Associate Professor
Randall R. Rojas, PhD

Adjunct Professor Emeriti
Patrick D. Convery, MBA, PhD
Olivia I. Osei-Twumasi, PhD
William E. Simon, Jr., JD, PhD
Christopher J. Surro, PhD

Scope and Objectives

The Department of Economics undergraduate program is designed for students who wish to gain a thorough understanding of both empirical and theoretical approaches to economics. Emphasis is on economic principles applied to resolving interpersonal conflicts of interest and coordinating productive activity in a world of scarce resources. Because students must gain a thorough theoretical and technical competence before extensive study of the applied specializations in the discipline, the analytic core of the major in Economics is closely structured. Some courses are appropriate for nonmajors, but the curriculum is most suitable for students who wish to make the study of economics the primary focus in their undergraduate education.

The undergraduate major provides students with analytical training in reference to socioeconomic phenomena and provides an excellent theoretical background for those pursuing graduate education in economics, law, management, public administration, journalism, social welfare, architecture and urban planning, and education.

The graduate program is designed primarily for students pursuing the PhD degree. The doctorate is awarded to those students who have achieved the level of study and training required for a professional economist. The degree recognizes students’ ability to make scholarly contributions in their fields of specialization and to undertake advanced research in those areas.

Undergraduate Study

Economics BA

Learning Outcomes

The Economics major has the following learning outcomes:

- Application of economic analyses to everyday life, and visualization of economics in real-world situations
- Application of learning to policy-relevant issues
- Ability to understand current events
- Ability to assess the likely impact of specific policies put forth by government entities
- Evaluation of the role played by assumptions in arguments made for and against economic and policy issues
- Use of quantitative evidence and economic models to assess the validity of economic and policy-relevant arguments
- Understanding of statistical methodology and interpretation of statistical evidence
- Use of data to construct quantitative economics arguments, and to understand the statistical problems associated with interpreting the results
- Understanding of the role of sample selection/endogeneity in affecting results, and how to correct for these issues
- Formulation of written arguments that state assumptions and hypotheses, and evaluation of their pros and cons based on evidence
- Oral presentation of a carefully reasoned economic argument, and response to related questions
- Graphic presentation of a carefully reasoned economic argument by means of graphs, figures, charts, and presentation software
- Working knowledge of information databases, and knowledge of how to use the Web in gathering reliable information
Location and use of primary data sources such as surveys
Use of knowledge gained to understand and evaluate current economic events and new economic ideas

Admission
Application for the Economics major should be filed at the undergraduate counselors office in 2263 Bunche Hall. To apply, students must have completed at least 72 quarter units (but no more than 135 quarter units), one 12-unit term in residence in regular session at UCLA, and all courses listed under preparation for the major. Grades for preparation for the major courses must be reflected on the transcript prior to submission.

Premajor
While students are completing the lower-division preparation courses for the major, they may be classified as Economics premajors.

Preparation for the Major
Required: Economics 1, 2, 11, 41; one Writing II course or English Composition 129B; Mathematics 31A, and 31B or 31E. Each course must be taken for a letter grade. A 2.0 (C) grade is required in each premajor course. To enter the major, students must have a minimum 2.5 grade-point average in the economics and mathematics preparation courses and a GPA of at least 2.0 in any upper-division courses taken for the major before applying.

Repetition of more than one preparation course or of any preparation course more than once, including equivalent courses taken elsewhere, results in automatic denial of admission to the major.

Transfer Students
Transfer applicants to the Economics major with 90 or more units must complete the following introductory courses prior to admission to UCLA: one microeconomics course, one macroeconomics course, two calculus courses from the mathematics/physical sciences sequence, and one English critical reading and writing course. Transfer students must successfully complete all premajor requirements within their first three registered terms at UCLA.

Transfer students are required to take Economics 41 at UCLA rather than prior to transfer.

Transfer credit for any of the above is subject to department approval; consult with an undergraduate counselor before enrolling in any courses for the major.

Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

The Major
Required: Twelve upper-division economics courses as follows: Economics 101, 102, 103, 103L, 104, 104L, and six Economics Department upper-division elective courses. No more than two of the elective courses may also be selected from Management 120A, 120B, 122, 127A, 130A, 180 (real estate finance only).

Each course must be taken for a letter grade. Former courses 100, 110, and 120 may not be included among the 10 upper-division courses. Transfer credit is subject to department approval; consult with an undergraduate counselor before enrolling in any courses for the major. Laboratory courses are required for all upper-division economics courses when they are offered and listed as mandatory co-requisite.

To graduate, students must have at least a 2.0 grade-point average in their upper-division major courses, with grades of C– or better in Economics 101, 102, 103, 103L, 104, and 104L.

Business Economics BA
The Business Economics BA program offers a major for students seeking a business orientation in their study of economics. It does not replicate the traditional undergraduate business school curriculum. Instead, it offers a more tightly focused curriculum that is guided by the rigorous logic and integrative perspective of economics. It is designed to prepare students for graduate education in business, economics, and law. The program requires students to include specific courses offered by the department and the John E. Anderson Graduate School of Management (see the major).

Learning Outcomes
The Business Economics major has the following learning outcomes:

- Understanding, through application of microeconomics, of the interaction of individuals and organizations in markets; and of the role of public policy in shaping those interactions
- Understanding, through application of macroeconomics, of the functioning of market economies at regional, national, and global levels; and of the role of public policy in shaping those interactions
- Understanding and application of accounting principles to analysis of business problems
- Acquisition and use of data to evaluate hypotheses with tables, charts, and statistical analyses
- Use of appropriate analytical perspectives and approaches to frame problems involving the interaction of people, organizations, markets, and society; identify effective strategic approaches to problem solving; and gather and organize key information to facilitate problem solving

Admission
Enrollment in the program is limited. Applications for admission are handled exclusively by the Department of Economics. Applications should be submitted online. To apply, students must have completed at least 72 quarter units (but no more than 135 quarter units), one 12-unit term in residence in regular session at UCLA, and all courses listed under preparation for the major. Applications are available on the undergraduate economics Moodle website and are accepted during the first three weeks of each quarter, including summer session A. In addition, they must (1) be enrolled in UCLA regular session at the time of application, (2) have a 2.0 (C) minimum grade in each preparation course, (3) have a minimum 3.0 (B) overall average in all preparation courses except the writing course, and (4) have a minimum 2.0 (C) grade-point average in their upper-division courses taken for the major before applying (Economics 101 applies on the major preparation grade-point average).

The prerequisite grade-point averages plus completion of the preparation for the major courses do not guarantee admission to the program. Admission is on a competitive basis, using the above qualifications as minimum standards for consideration.

Premajor
While students are completing the preparation courses for the major, they may be classified as Business Economics premajors.

Transfer Students
Transfer students who wish to enter UCLA as Business Economics premajors must meet the admission screening requirements. For information, contact Undergraduate Admission.

Preparation for the Major
Required: Economics 1, 2, 11, 41; one Writing II course; Management 1A, 1B; Mathematics 31A, and 31B or 31E. Each course must be taken for a letter grade.

Repetition of more than one preparation course or of any preparation course more than once, including equivalent courses taken elsewhere, results in automatic denial of admission to the major.

Transfer Students
Transfer applicants to the Business Economics major with 90 or more units must complete the following introductory courses prior to admission to UCLA: one microeconomics course, one macroeconomics course, two calculus courses from the mathematics/physical sciences sequence, one English critical reading and writing course.

Transfer students are required to take Economics 41 at UCLA rather than prior to transfer.

Transfer credit for any of the above is subject to department approval; consult with an undergraduate counselor before enrolling in any courses for the major.

Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

The Major
Required: Economics 102, 103, 103L, 104, 104L, and at least two courses from the 106 series; English Composition 131B; five upper-division elective courses in economics and management (no more than three management courses from Management 108, 120A, 120B, 122, 123, 124, 126, 127A, 127B, 130A, 140 may be applied toward the elective requirement). In addition to Economics 103 and 103L, and 104 and 104L, at least two economics courses with laboratories must be completed and may be selected from either the Economics 106 series or an economics elective.

Each upper-division major course must be taken for a letter grade. Transfer credit for any of the major courses is subject to department approval; consult with an undergraduate counselor before enrolling in any courses for the major. Laboratory courses are
required for all upper-division economics courses when they are offered and listed as mandatory corequisite.

To graduate, students must have a minimum 2.0 grade-point average in their upper-division major courses, with at least a C– in each course. (Economics 101) applies on the preparation for the major, therefore requiring a minimum grade of C–.

Mathematics/Economics BS
See the Mathematics/Economics interdepartmental program section for a description of the major.

Honors Program
The departmental honors program is open to majors in Economics and Business Economics who have a cumulative grade-point average of at least 3.5 in the major and in all courses taken at UCLA prior to application.

To qualify for departmental honors at graduation, students must (1) select at least seven of the required upper-division economics courses from the approved list designated for departmental honors, (2) complete a two-term senior thesis acceptable to the departmental honors committee in Economics 198A and 198B, and (3) complete the major requirements with at least a 3.5 grade-point average in the economics courses. Highest honors are awarded at the discretion of the departmental honors committee based on grade-point average and quality of the senior thesis.

Economics 198A and 198B, the courses required for thesis preparation, may be counted as upper-division courses toward the field in which the thesis is written (for purposes of satisfying the requirements for the major). More information and application forms are available from an undergraduate counselor in 2263 Bunche Hall.

Graduate Study
Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Division website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Graduate Degrees
The Department of Economics offers Master of Arts (MA), Candidate in Philosophy (CPhil), and Doctor of Philosophy (PhD) degrees in Economics and a self-supporting Master of Applied Economics (MAE) degree.

Economics
Lower-Division Courses
1. Principles of Economics. (4) Lecture; three hours; discussion, one hour. Enforced requisite: course 1. Not open to students with credit for former course 100. Introduction to principles of economic analysis, economic institutions, and issues of economic policy. Emphasis on allocation of resources and distribution of income through price system. P/NP or letter grading.

2. Principles of Economics. (4) Lecture; three hours; discussion, one hour. Enforced requisite: course 1. Not open to students with credit for former course 100. Introduction to principles of economic analysis, economic institutions, and issues of economic policy. Emphasis on allocation of resources and distribution of income through price system. P/NP or letter grading.

3A. Introduction to Investments. (2) Lecture, two hours. Introduction to investments. No previous financial, economic, or math background needed. Students learn organizing framework with which to understand investing landscape with highlight on key concepts and functions of business and personal investments. Topics include why financial markets exist and how they work, efficient market hypothesis, risk versus reward, investment styles, valuation techniques, simple quantitative analysis, power of compound interest, financial crises, and role private equity, venture capital, innovation and start-ups, and personal financial advisers. Serves as excellent introduction to career paths in finance and for those who want to increase their financial literacy. P/NP grading.

3B. Introduction to Investments. (2) Lecture, two hours. Requisite: course 3A; Broad introduction to investments. No previous financial, economic, or math background needed. Students learn organizing framework with which to understand investing landscape with highlight on key concepts and functionality related to business and personal investments. Topics include exchange rate economics, financial statements, value creation, interpreting financial ratios, power of compound interest and understanding present value, diversification, Capital Asset Pricing Model, Sharpe ratio, and understanding asset’s beta, hedge funds. Serves as excellent introduction to career paths in finance and for those who want to increase their financial literacy. P/NP grading.

4. Introduction to Investments. (4) Lecture, two hours. Broad introduction to investments. No previous financial, economic, or math background needed. Students learn organizing framework with which to understand investing landscape with highlight on key concepts and functions of business and personal investments. Topics include why financial markets exist and how they work, efficient market hypothesis, risk versus reward, investment styles, valuation techniques, simple quantitative analysis, power of compound interest, financial crises, and role private equity, venture capital, innovation and start-ups, personal financial advisers, exchange rates, central banks, financial statements, value creation, interpreting financial ratios, understanding present value, diversification, Capital Asset Pricing Model, Sharpe ratio, and understanding asset’s beta, hedge funds. Serves as excellent introduction to career paths in finance and for those who want to increase their financial literacy. P/NP grading.

5. Economics for everyone. (5) Lecture, three hours; discussion, one hour. Introduction to models and tools used by economists in practical real-world context. Study of important topical issues such as inequality, health care, and environmental policies. Students learn about available data sources and become better equipped to understand current events. May not be used to fulfill entrance requirements for any Economics Department major. P/NP or letter grading.

11. Microeconomic Theory. (4) Lecture, three hours; discussion, one hour. Enforced requisites: courses 1, 2, Mathematics 31A, 31B, with grades of C or better. Laws of demand, supply, returns, and costs; price and output determination in different market situations. P/NP or letter grading.

19. Fiat Lux Freshman Seminars. (1) Seminar; one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

41. Probability and Statistics for Economists. (4) Lecture, three hours; discussion, one hour. Enforced requisites: Mathematics 31A, 31B, with grades of C or better. Not open to credit for former Statistics 11. Introduction to theory and practice of mathematical statistics with emphasis on its use in economics. Introduction of basic statistical concepts such as random variables, probability distributions, estimation, confidence intervals, and hypothesis testing. Letter grading.

89. Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to lower-division lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

89HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to lower-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

97. Economic Toolkit. (4) Lecture, three hours. Coverage of essential mathematical and programming skills needed for study of Economics. Review of calculus (first derivatives, partial derivatives, elementary integral calculus), Excel (handling data, using simple arithmetical, mathematical, and financial functions, use of Solver), and extended introduction to statistical language R and/or Stata. Consult instructor for specific software. Offered in summer only. P/NP grading.

99. Student Research Program. (1 to 2) Tutorial (supervised research or other scholarly work), three hours per week per unit. Entry-level research for upper-division students under guidance of faculty mentor. Students must be in good academic standing and enrolled in minimum of 12 units (excluding this course). Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP grading.

Upper-Division Courses


103. Introduction to Econometrics. (4) Lecture, two hours; discussion, one hour. Enforced requisites: courses 11, and 41 or Mathematics 170E and 170S or Statistics 100A and 100B. Enforced corequisite: course 103L. Introduction to theory and practice of univariate regression analysis with emphasis on its use in economics. Introduction to method of least squares, Gauss-Markov theorem, confidence intervals and hypothesis tests in univariate regression context, and standard errors in case of heteroscedasticity and serial correlation. Emphasis on applications with real data and computer software (R programming language) to implement discussed methods. P/NP or letter grading.

103L. Econometrics Laboratory. (1) Lecture, one hour; laboratory, one hour. Requisites: courses 11, and 41 or Mathematics 170E or 170S or Statistics 100A. Enforced corequisite: course 103L. In-depth discussion of multivariate regression. Introduction to estimation of multivariate regression, and confidence intervals and hypothesis tests in context of multivariate regression. Discussion of instrumental variables and binary choice models. Emphasis on hands-on experience on data analytics and real data applications. P/NP or letter grading.

106A. Economics in Practice. (4) Seminar, three hours. Enforced requisites: courses 11, 101, 102. Enforced corequisite: course 106AL. Students, in groups of four, address three small problems and one large and more complex problem. Discussion of student-proposed solutions to problems in their groups, with small-group discussions to student presentations of results and feedback by MBA students on student analysis and presentations. Final written and oral presentations required. P/NP or letter grading.

106AL. Economics in Practice Laboratory. (1) Lecture, one hour; laboratory, one hour. Requisites: courses 11, 101, 102. Enforced corequisite: course 106A. Case-based analysis requiring students to apply material from course 106A to real-world problems regarding issues such as economic theory and empirical methods. Hands-on data collection and problem solving and presentation of student analyses both orally and in writing. P/NP or letter grading.

106D. Designed Markets. (4) Lecture, three hours; discussion, one hour; laboratory, one hour. Enforced corequisite: course 106DL. Discussion of markets and institutions that were purposefully designed, mostly by economists. Choices designers face when combating market failures. Markets and alternative allocation mechanisms. Hands-on course allocation in business schools, eBay auctions, and prediction markets. Examination of how to optimize one’s actions and outcomes in such markets. P/NP or letter grading.

106DL. Designed Markets Laboratory. (1) Lecture, one hour; laboratory, one hour. Requisites: courses 11, 101. Enforced corequisite: course 106D. Case-based analysis requiring students to apply material from course 106D to real-world problems regarding topics such as matching between medical residents and hospitals, matching between high school students and New York area colleges, kidney transplants, college admissions, and other markets. Hands-on course allocation in business schools, eBay auctions, and prediction markets. Hands-on data collection and problem solving and presentation of student analyses both orally and in writing. P/NP or letter grading.


106F. Finance. (4) Lecture, three hours. Requisite: course 101. Enforced corequisite: course 106FB. Enrolment priority to Business Economics majors. Introduction to basic ideas of game theory and strategic thinking. Discussion of issues such as dominance, backward induction, Nash equilibrium, cooperation, credibility, asymmetric information, and signaling, with application to examples from economics, politics, business, and other real-life situations. Letter grading.

106G. Introduction to Game Theory. (4) Lecture, three hours; discussion, one to two hours (when scheduled). Requisite: course 101. Enforced corequisite: course 106G. Case-based analysis requiring students to apply theory from course 106F to real-world problems regarding topics such as discounted cash flow analysis, CAPM model, and applications to public policy. Letter grading.

106H. Introduction to Game Theory Laboratory. (1) Lecture, three hours. Requisite: course 101. Enforced corequisite: course 106H. Case-based analysis requiring students to apply material from course 106H to real-world problems involving game theory and strategic thinking. Discussion of student-proposed solutions to problems in their groups, with small-group discussions to student presentations of results and feedback by MBA students on student analysis and presentations. Final written and oral presentations required. P/NP or letter grading.


106IL. Organization of Firms Laboratory. (1) Lecture, one hour; laboratory, one hour. Requisite: courses 11, 101. Enforced corequisite: course 106IL. Case-based analysis requiring students to apply material from course 106I to real-world problems. Hands-on data collection and problem solving and presentation of student analyses both orally and in writing. Letter grading.

106M. Financial Markets and Financial Institutions. (4) Lecture, three hours; discussion, one hour. Requisites: courses 11, 101, 102. Enforced corequisite: course 106M. Application of analytical tools of economic theory to modern financial institutions. Financial markets to link models students have learned in prior courses to patterns observed in financial markets and to understand when it is that further theoretical refinements are required to better account for certain observed patterns. Development of understanding of potential effects of monetary and regulatory policies on financial markets. Topics include international exchange market, foreign exchange market, Euromarkets, and financial regulation. Analysis and discussion of lessons of subprime crisis and European sovereign debt crisis. P/NP or letter grading.

106ML. Financial Markets and Financial Institutions Laboratory. (1) Lecture, one hour; laboratory, one hour. Requisites: courses 11, 101, 102. Enforced corequisite: course 106ML. Case-based analysis requiring students to apply material from course 106M to real-world problems regarding topics such as financial security, foreign exchange market, Euromarkets, and financial regulation. Hands-on data collection and problem solving and presentation of student analyses both orally and in writing. P/NP or letter grading.


106PL. Pricing and Strategy Laboratory. (1) Lecture, one hour; laboratory, one hour. Requisite: course 101. Enforced corequisite: course 106PL. Case-based analysis requiring students from course 106P to real-world problems involving linear programming and shadow pricing, peak load pricing, two-part pricing, strategic pricing, and auctions and bidding. Hands-on data collection and problem solving and presentation of student analyses in writing. P/NP or letter grading.

106T. Economics of Technology and E-Commerce. (4) Lecture, three hours; discussion, one hour; laboratory, one hour. Enforced corequisite: course 106TL. Use of rigorous economic tools to analyze world of technology and e-commerce. Examination of economic theory, empirical analysis, and case studies to study variety of new markets. Topics include bidding in online auctions, two-sided markets, matching markets, and reputation mechanisms. Written case on one particular firm and presentation required. P/NP or letter grading.

106TL. Economics of Technology and E-Commerce Laboratory. (1) Lecture, one hour; laboratory, one hour. Requisites: courses 11, 101, 102. Enforced corequisite: course 106T. Case-based analysis requiring students to apply theory from course 106T to real-world problems regarding issues such as bidding in online auctions, two-sided markets, matching markets, reputation mechanisms, and more. Hands-on data collection and problem solving and presentation of student analyses both orally and in writing. P/NP or letter grading.

106V. Investments. (4) Lecture, three hours. Requisite: course 101. Recommended: course 106V. Enforced corequisite: course 106V. Case-based analysis requiring students to apply theory from course 106V to real-world problems involving investment topics such as portfolio management, option pricing theory, synthetic options, and other investment topics. Hands-on data collection and problem solving and presentation of student analyses both orally and in writing. P/NP or letter grading.

106VL. Investments Laboratory. (1) Lecture, one hour; laboratory, one hour. Requisite: course 102. Recommended: course 106VL. Enforced corequisite: course 106VL. Case-based analysis requiring students to apply theory from course 106VL to real-world problems regarding topics such as portfolio management, option pricing, and other investment topics. Hands-on data collection and problem solving and presentation of student analyses both orally and in writing. P/NP or letter grading.


111. Theories of Development. (4) Lecture, three hours. Requisites: courses 11, 101, 102. Enforced corequisite: course 111L. Application of theoretical and empirical tools from microeconomics to provide insights into problems confronting low-income countries today and to explore policies that are likely to be effective in improving welfare of poorest on globe. P/NP or letter grading.

111L. Theories of Development Laboratory. (1) Lecture, one hour; laboratory, one hour. Requisites: courses 11, 101, 103. Corequisite: course 111L. Case-based analysis requiring students to apply material from course 111 to real-world problems involving development. Topics and analysis include measures of development, sources of growth, development, impediments to development, and policy prescriptions. P/NP or letter grading.

113. Globalization and Gender. (4) Lecture, three hours. Requisite: course 11. Examination of gender dimensions of economic development and globalization from perspective of feminist economics. This perspective implies foregrounding labor, broadly defined to include paid and unpaid work, examining gender differences in work; access to resources; and well-being outcomes; and how these are affected by macroeconomic policies and how gender inequalities are relevant for societal welfare. Since early 1980s economic globalization has been achieved on basis of common set of macroeconomic policies pursued in industrial and developing countries alike. These policies frame both potential impacts of policy initiatives that are implemented to reduce inequalities between men and women. Examination of impact of these policies on gender inequalities in developing countries. P/NP or letter grading.


121L. International Trade Theory Laboratory. (1) Lecture, one hour; laboratory, one hour. Requisite: course 101. Corequisite: course 121. Case-based analysis and apply material from course 121L to real-world problems involving international trade. Topics and analysis include theory of international trade: bases, direction, terms, volume, and gains of trade; balance of payments, quantitative restrictions, and international integration; effects of free and restricted trade on economic welfare and political stability. P/NP or letter grading.

122. International Finance. (4) Lecture, three hours; discussion, one hour. Requisite: course 101. Enforced corequisite: course 122L. Not open to students with credit for former course 120. Emphasis on interpretation of balance of payments and adjustment to national and international imbalances through changes in price levels, exchange rates, and national income. Other topics include making international payments, determination of exchange rates under various monetary standards, capital movements, exchange rates under various monetary standards, and international monetary system. P/NP or letter grading.

122L. International Finance Laboratory. (1) Lecture, one hour; laboratory, one hour. Requisite: course 101. Enforced corequisite: course 122. Case-based analysis requiring students to apply material from course 122L to real-world problems involving international finance. Topics and analysis include theory of international trade: bases, direction, terms, and gains of trade; balance of payments, quantitative restrictions, and international integration; effects of free and restricted trade on economic welfare and political stability. P/NP or letter grading.

M123. Foreign Exchange Market and Exchange Rate Forecasting. (8) Same as Honors Collegium M109.) Seminar, four hours. Introduction to forecasting of exchange rates. Theory linked with real-world data through use of powerful computer platform called Tradestation in computer laboratory. Analysis of how foreign exchange market works, what financial instruments are useful, and what management tools are used by market analysts. Techniques used to study exchange rate movements, and foreign exchange rate forecasts. (4–4–4–4) Seminar, three hours; laboratory, one hour. Enforced corequisites: courses 101, 102. Limited to seniors. Overview of most current developments in international economics for advanced undergraduate and graduate studies. Introduction to graduate-level research in this field. Different topics each week, with presentation and discussion of new papers. Research in progress presented, discussed, and critiqued by visiting experts, UCLA faculty members, and advanced graduate students. Concurrently scheduled with courses C258A-C258B-C258C. Economics: 300-400 level. P/NP or letter grading.
148. Behavioral Economics. (4) Lecture, three hours. Enforced requisite: course 101. Behavioral economics is emerging subfield of economics that incorporates insights from psychology and other social sciences into economics to improve realism of economic models. Incorporating realistic features such as aversion for losses, problems with self-control, or concerns for others and thereby improve economic analyses. Review of some standard assumptions made in economic theory, presentation of evidence on how human behavior systematically departs from these assumptions, Investigation of attempts to explore alternative models of human decision making and assessment to determine which alternative models help improve economic analyses. P/NP or letter grading.


C150L. Labor Economics Laboratory, (1) Lecture, one hour; laboratory, one hour. Requisites: courses 11, 101, 103. Enforced corequisite: course 150. Case-based analysis requiring students to apply theoretical tools from economics to real-world problems involving labor economics. Topics include labor supply decisions, household production decisions, life-cycle aspects of labor supply, short-run and long-run labor demand, the labor market, quasi-fixed labor costs and labor demand, human capital, and other extended topics. Hands-on data collection and problem solving and presentation of student analyses both orally and in writing. P/NP or letter grading.

151. Topics in Labor Economics. (4) Lecture, three hours. Requisites: courses 101, 150. Selected topics in labor theory; income distribution; business cycles and unemployment; investments in human capital and life-cycle migration; human fertility; marriage and divorce, etc. P/NP or letter grading.

C156A-C156B-C156C. Seminars: Labor Economics. (4-4-4) Seminar, three hours. Requisites: courses 11, 101, 102. Limited to seniors. Overview of most current developments in labor economics for advanced undergraduate and graduate students. Introduction to graduate-level research in this field. Different topics each week, with presentation and discussion of new papers. Research in progress presented, discussed, and criticized by visiting experts, UCLA faculty members, and advanced graduate students. Concurrently scheduled with courses C226A-C226B-C226C. P/NP or letter grading.


164. Advanced Topics in Macroeconomics: Theory of Economic Growth Laboratory. (1) Lecture, one hour; research group meeting, one hour; laboratory, one hour. Requisite: course 102. Source of enforced corequisite: course 164L. Use of neoclassical growth model to address various issues, with emphasis on quantitative analysis. Development of economic theory and application to study of long-run growth, industrial revolutions, Depression. P/NP or letter grading.

164L. Advanced Topics in Macroeconomics: Theory of Economic Growth Laboratory. (1) Lecture, one hour; research group meeting, one hour; laboratory, one hour. Requisite: course 102. Source of enforced corequisite: course 164. Case-based analysis requiring students to apply theory from course 164 to real-world macroeconomic growth problems. Hands-on data collection and problem solving and presentation of student analyses in writing. P/NP or letter grading.


165L. History of Capitalism in American Economy Laboratory. (1) Lecture, one hour; laboratory, one hour. Requisite: course 165. Enforced corequisite: course 165L. Case-based analysis requiring students to apply theory and historical data from course 165 to simulate and analyze how variety of macroeconomic policies impact economic activity. Hands-on data collection and problem solving and presentation of student analyses in writing. P/NP or letter grading.

C166A-C166B-C166C. Seminars: Monetary Economics/Macroeconomics. (4-4-4) Seminar, three hours. Requisites: courses 102, 102L. Introduction to graduate-level research in this field of microeconomic analysis of modern money, income, and inflation. Monetary theory and practice of monetary policy. P/NP or letter grading.

167. Victims and Villains; Panics and Bubbles. (4) Lecture, three hours. Requisites: course 101, Management 120A (may be taken concurrently). Focus on phenomena of panics, bubbles, and manias in financial history. In-depth analysis and discussion of underlying causes, private and public policy responses, similarities and differences of historical bubbles. Outlines for students to apply material from course 170 to real-world problems in the financial landscape. Focus on study of financial meltdown of 2008 with comprehensive treatment of financial and banking panics, with discussion of underlying housing and stock market bubbles. Highlights report of Financial Crisis Inquiry Commission, and various components of the crisis with case and discussion on each component. Also covers five other financial crises: panic of 1907, Great Depression, Japanese real estate and stock market bubbles of 1980s, American banking crises of 1980s, and Asian Contagion of late 1990s. Students read case studies relating to each, and more general readings including speeches, papers, and articles. Letter grading.

168. Introduction to Principles of Value Investing. (4) Lecture, three hours. Requisites: course 101, Management 120A (may be taken concurrently). Extends the principles of introductory classes to more advanced and a wider variety of applications. Makes use of multiple case studies to enhance comprehension with real-world examples and to highlight necessary valuation skills that students expected to master. Also covers market dynamics that can create opportunities to find structurally mispriced securities such as rights offerings, spin-offs, restructurings, and liquidations. Designed to help students better understand the roles of valuation, corporate finance, investment banking, and corporate finance. Letter grading.

169. Applied Value Investing. (4) Lecture, three hours. Requisites: courses 101, 168, Management 120A (may be taken concurrently). Extends the principles of applied value class to more advanced and a wider variety of applications. Makes use of multiple case studies to enhance comprehension with real-world examples and to highlight necessary valuation skills that students expected to master. Also covers market dynamics that can create opportunities to find structurally mispriced securities such as rights offerings, spin-offs, restructurings, and liquidations. Designed to help students better understand the roles of valuation, corporate finance, investment banking, and corporate finance. Letter grading.


170L. Industrial Organization: Theory and Tactics Laboratory. (1) Lecture, one hour; laboratory, one hour. Requisite: course 101. Enforced corequisite: course 170. Case-based analysis requiring students to apply material from course 170 to real-world problems involving monopoly, collusion, strategic firm behavior, pricing practices, antitrust and other topics. Hands-on data collection and problem solving and presentation of student analyses both orally and in writing. P/NP or letter grading.

171. Industrial Organization: Policy and Regulation. (4) Lecture, three hours. Requisite: course 101. Requisites: courses 11, 101, 102. Enforced corequisite: course 171. Designed to give foundation to topics in field of industrial organization relating to regulation of monopoly power within economy and different ways that manifests affect within industrial settings. Particular attention to topics in antitrust policy, with some exploration of intersection between economics and law. Topics include in-depth analysis of advanced understandings of antitrust theory and specifics of analytical approaches deployed in enforcement by Department of Justice and Federal Trade Commission. P/NP or letter grading.

173A-173B. Introduction to Social Entrepreneurship. (4) Lecture, one hour; research group meeting, two hours. Course 173A is requisite to 173B. Full-scale immersion into world of social entrepreneurship. Introduction to basics of business planning for social enterprises. Students are assigned in teams to work with participating social enterprises in Los Angeles area to implement new revenue-generating business plan for social enterprises to which they are assigned. Teams receive support from MBA student volunteers as advisers on how to work effectively together and how to resolve issues that arise with staff of assigned social enterprise. Courses 173A and 173B must be taken in consecutive terms. In Progress (173A) and P/NP or letter grading.

174. Economics of Sports. (4) Lecture, three hours. Enforced requisites: courses 11, 41, 101. Recommended: courses 103/103L. Introduction to the economics that employs both theoretical and empirical tools to analyze wide range of topics related to sports industry. Topics include history of labor relations in professional sports, history and analysis of player salaries in professional sports, market for professional sports franchises and sports broadcast rights, league expansion and relocation decisions, understanding of role of economic impact studies (cost-benefit analysis) and public/private partnerships in facility financing, relationship between academics and athletics in collegiate sports, racial discrimination in sports, evaluation of labor market and union organization, labor market for professional athletes, different league structures, and competition between leagues, and competitive strategy, measuring return on investment from sports sponsorships, and calculation of economic damages in legal cases involving athletes. P/NP or letter grading.

C176A-C176B-C176C. Seminars: Industrial Organization. (4-4-4) Seminar, three hours. Requisites: courses 11, 101, 102. Limited to seniors. Overview of most current developments in industrial organization for advanced undergraduate and graduate students. Introduction to graduate-level research in this field. Different topic each week, with presentation and discussion of new papers. Research in progress presented, discussed, and criticized by visiting experts, UCLA faculty members, and advanced graduate students. Concurrently scheduled with courses C226A-C226B-C226C. P/NP or letter grading.
181. Development of Economic Institutions in Western Europe. (4) Lecture, three hours. Requisite: courses 11, 103. Corequisite: course 181L. Application of economic theory and quantitative reasoning to study economic history of Western Europe from 18th to 20th centuries and the effects of these changes on American society, P/NP or letter grading.

181L. Development of Economic Institutions in Western Europe Laboratory. (1) Lecture, three hours; laboratory, one hour. Requisite: courses 11, 103. Corequisite: course 181L. Empirical analysis requiring application of material from course 181. Direct instruction to selected historical issues, such as Mercantilist theory, Industrial Revolution, demographic transition, formation and persistence of institutions and organizations, World Wars, and development of Europe during 1950s and 1960s. Hands-on data collection and problem solving and presentation of student analyses in writing. P/NP or letter grading.


183L. Development of Economic Institutions in U.S. Laboratory. (4) Lecture, one hour; laboratory, one hour. Requisite: course 11. Enforced corequisite: course 183L. Empirical analysis requiring students to apply material from course 183 to selected historical issues such as migration, slavery, industrialization, capital formation, Great Depression, human capital formation, and California development and relate them to current real-world issues. Hands-on data collection and problem solving and presentation of student analyses in writing. P/NP or letter grading.

185. Career Development. (1) Formerly numbered C185. Limited enrollment priority to departmental majors. Designed to provide Business Economics majors with key knowledge and practical skills used in real world that complement traditional academic demands to maximize interview, communication, and presentation skills and strengthen resume building. Coverage of career paths in business profession in various aspects to broaden students’ knowledge of career opportunities. Review of current business environment, three hours. S/U or letter grading.

C186A-C186B-C186C. Seminars: Economic History. (4—4—4) Seminar, three hours. Limited to seniors. Overview of most current developments in economic history for advanced undergraduate and graduate students. Introduction to graduate-level research in this field. Different topic each week, with presentation and discussion of new papers. Research in progress presented, discussed, and critiqued by visiting experts, UCLA faculty members, and advanced graduate students. Concurrently scheduled with courses C246A-C246B-C246C. P/NP or letter grading.

187. Upper-Division Research Seminar: Applications of Economic Theory. (4) Seminar, three hours. Requisite: course 110. Limited enrollment priority to departmental majors. Designed to provide Business Economics majors with key knowledge and practical skills used in real world that complement traditional academic demands to maximize interview, communication, and presentation skills and strengthen resume building. Coverage of career paths in business profession in various aspects to broaden students’ knowledge of career opportunities. Review of current business environment, three hours. S/U or letter grading.

188A. Individual Studies for USIE Facilitators. (1) Tutorial, to be arranged. Enforced corequisite: Honors Collegium 101E. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor to discuss selected USIE seminar topic, conduct preparatory research, and begin preparation of syllabus. Individual contract with faculty mentor required. May not be repeated. Letter grading.


188C. Individual Studies for USIE Facilitators. (2) Tutorial, to be arranged. Enforced corequisite: course 188B. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor while fulfilling USIE course. Individual contract with faculty mentor required. May not be repeated. Letter grading.

189. Advanced Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to undergraduate lecture course in topics of greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

189HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to upper-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 12 units; honors contract required. Honors content noted on transcript. Letter grading.


192. Undergraduate Practicum in Economics. (3) Seminar, two hours. Limited to juniors/seniors. Training and supervised practicum for advanced undergraduate students. Assist in preparation of course materials and implementation of innovative programs with guidance of faculty members. P/NP or letter grading.

195A-195B-195C. Community and Corporate Internships in Economics I, II, (2–4) Tutorial, to be arranged. Requisite: courses 11, 101. Limited to junior/senior Economics, Business Economics, Economics/International Area Studies, and Mathematics/Economics majors. Internship to be supervised by Economics Department. Further supervision to be provided by business or entity for which student is doing internship. Students meet on regular basis with instructor and provide periodic reports of their experience. May not be applied toward major requirements. Only 8 units from courses 195A and 195B may be applied toward undergraduate degree. Individual contract with supervising faculty member required. P/NP grading.

195C. Community and Corporate Internships in Economics. (4) Tutorial, to be arranged; fieldwork, eight to 10 hours. Requisites: courses 11, 101. Limited to juniors/seniors. Internship in corporate, governmental, non-profit setting certified by Economics Department. Students complete weekly written assignments, attend biweekly meetings with graduate student coordinator, and write final research paper. Faculty mentor while facilitating USIE 88S course. Individual contract with faculty mentor required. May not be repeated toward major requirements. May be repeated for credit with consent of department. Individual contract with supervising faculty member required. P/NP or letter grading.

198A. Honors Research in Economics I. (4) Tutorial, three hours. Requisites: courses 11, 101, 102. Limited to junior/senior departmental honors program students. First term of two-term sequence in which students develop honors thesis or comprehensive research project under direct supervision of faculty member. Individual contract required. In Progress grading (credit to be given only on completion of course 198B).

198B. Honors Research in Economics II. (4) Tutorial, three hours. Requisite: course 198A. Limited to departmental honors program students. Second term of two-term sequence in which students complete honors thesis or comprehensive research project under direct supervision of faculty member. Individual contract required. Letter grading.

199A. Directed Research in Economics. (4) Tutorial, three hours. Requisites: courses 11, 101, 102. Limited to juniors/seniors. Supervised individual research or investigation under guidance of faculty mentor while fulfilling USIE course or project required. May be repeated twice but may be applied only once toward major requirements. Individual contract required. P/NP or letter grading.

199B. Directed Research in Economics/International Area Studies. (4) Tutorial, four hours. Requisites: courses 103, and 121 or 122. Limited to senior Economics/International Area Studies majors. Students prepare research papers under guidance of faculty mentor on economy or currency region of specialization. May be repeated for credit. Individual contract required. Letter grading.

Graduate Courses

Foundations of Economics

200. Mathematical Methods in Economics. (4) Lecture, three hours. Should be taken prior to enrollment in course 201A. Examination of mathematical methods used in graduate-level courses in microeconomics, macroeconomics, and quantitative methods. Topics include real analysis, linear algebra and matrices, calculus of many variables, static optimization, convex analysis, and dynamics and dynamic optimization. S/U grading.

200B. Mathematical Methods in Economics II. (4) Lecture, three hours; laboratory, two hours. Should be taken prior to or concurrently with course 201B. Linear and nonlinear dynamical systems. Basic real analysis, normed vector space/ Banach space, Hahn/Banach theorem, Schauder fixed point theorem, and theory of correspondences. S/U grading.

201A-201B-201C. Microeconomics. (4—4—4) Lecture, three hours, S/U or letter grading.


201C. Game Theory with Asymmetric Information and Applications. (4) Lecture, three hours. Perfect Bayesian equilibrium and mechanism design. Applied topics such as adverse selection, signaling, moral hazard, bidding, price discrimination, and public good provision. S/U or letter grading.


202A. Dynamics and Growth Theory. (4) Lecture, three hours. Essential techniques and concepts from dynamical mathematics and neoclassical growth theory. Linear and nonlinear dynamical systems. Dynamic
205. Economic Modeling (4) Lecture, three hours. Development of modeling skills by considering sequence of economic issues (e.g., peak load pricing, regulation, monopoly, capital asset pricing, Pareto efficiency). Emphasis on multivariate constrained optimization. S/U or letter grading.

206. Law and Economics Workshop, (2 or 3) Seminar, two hours. Requisite: course 201A or Management 405. Knowledge of empirical methods and basic calculus required. Interdisciplinary speakers series presenting on a variety of topics within economic analysis. May be repeated for credit. S/U grading.

207. History of Economic Thought. (4) Lecture, three hours. Topics from classical economics, including work of Smith, Ricardo, and Mill, and developments from 1870s, including contributions of major figures of marginalist revolution, socialist controversy, and history of welfare economics. S/U or letter grading.

208. Game Theory and Economic Applications. (4) Lecture, three hours. Current research in microeconomic theory and for students who want to acquire good theory background to do applied work. Emphasis on applied macroeconomics, with topics of current research, including notions of general equilibrium in static and dynamic games, reasoning in equilibrium in games, repeated games, games of incomplete information, and experiments. S/U or letter grading.

209. Applied Game Theory. (4) Lecture, three hours. Emphasis on theoretical, historical, and applied aspects of economic theory as well as economic policies. Application of game theory, cooperative and noncooperative approach to competitive equilibrium theory, perfectly competitive equilibrium, no-surplus condition, and applications to mechanism theory and incomplete market models. May be repeated for credit. S/U or letter grading.

210. Topics in Mathematical Economics. (4) Lecture, three hours. Requisite: course 211B. Core convergence theoretical tools and techniques used in models of moral hazard, adverse selection, and incomplete contracting, starting with static models of moral hazard and mechanism design and development of their dynamic counterparts. Consideration of environments where agents cannot use formal contracts, studying relational contracts and trading relationships with no contracts. Analysis of wide variety of applications from insurance and decision making, corporate finance, personnel economics, and public economics. S/U or letter grading.

211. Economics of Uncertainty, Information, and Decision Making. (4) Lecture, two hours. Introduction to probability. Enforced requisite: course 201C. Theory of individual decision making under uncertainty, applied to topics such as asset pricing models, adverse selection, moral hazard, bargaining, signaling, auctions, and search. S/U or letter grading.

213A. Seminar in Economic Theory. (1–4) Seminar. Designed to bring together outside speakers with scholars and students from UCLA Law School and academic departments. Topics include articles, contracts, torts, intellectual property, and policy oriented presentations. Students write graded reaction papers. May be repeated for credit. Concur rently scheduled with Law 648 and Management 294. S/U or letter grading.

216A. Introduction to Economic Analysis. (4) Lecture, three hours. Probability and statistics. Topics include error-in-variables, generalized least squares, heteroskedasticity, and applications to economic development. S/U or letter grading.


220A-220B-220C. Topics in Mathematical Economics, (4–4–4) Same as Sociology M225A, Seminar, three hours. Examination of issues such as demography, health, aging, labor, and broad array of topics concerned with effects of economic, social, and political institutions on human behavior both in U.S. and abroad. Each course may be taken independently for credit. S/U grading.

224. (4) Lecture, three hours. Preparation: introductory knowledge of statistics and applied econometrics courses. In past decades econometricians have learned remarkable amount about how society works. Increased understanding has come about through development of statistically sophisticated techniques—to topics such as healthcare, crime, education, and immigration. Tackled together with increased understanding of causality, econometricians have learned how to measure it, how inequality has increased in U.S., how America differs from other rich countries and, most important, what causes inequality. Three hours. Preparation: calculus, introductory probability. Price searching, queuing, Brownian motion, martingales, and applications to theory of firm. May be repeated for credit. S/U or letter grading.

233. Undergraduate Seminar in Econometrics. (1) Lecture, two hours. Requisite: course 231B. Selected advanced theoretical topics of current interest and introduction to modern mathematical economics, including general equilibrium theory and game theory. S/U or letter grading.

241A-241B. Topics in Mathematical Economics. (4 each) Lecture, three hours. Requisite: course 211B. Current research in mathematical economics. Content varies. Ordinarily only two courses in this sequence given each year. May be repeated for credit. S/U or letter grading.

244A. General Equilibrium Theory. (4) Lecture, three hours. Requisite: course 211C. Core convergence theoretic approach to competitive equilibrium theory, perfectly competitive equilibrium, no-surplus condition, and applications to mechanism theory and incomplete market models. May be repeated for credit. S/U or letter grading.

M215. Topics in Applied Game Theory. (4) Same as Political Science M208B. Lecture, three hours. Preparation: calculus or introductory probability. Designed for graduate students and political science students. Survey and applications of major solution concepts to problems of bargaining, oligopoly, cost allocation, and voting power. S/U grading.


235. Seminar in Economic Theory. (1–4) Seminar. Enrollment limited to graduate students. Current research in economic theory, with focus on two particular data sets to study. Each week class studies article from recent work in applied macroeconomics or applied econometrics that teaches one technique or suggests
one theoretical restriction on data. Subgroups of students report back to class using techniques on their selected data set. S/U or letter grading.

222B-222Z. Topics in Monetary Economics. (4 each) Lecture, three hours. Current research in monetary economics. Content varies. May be repeated for credit. S/U or letter grading.

226A-C226B-C226C. Seminars: Monetary Economics/Macroeconomics. (4–4–4) Seminar, three hours. Designed for predissertation and dissertation writers. Coverage of most current developments in monetary economics and macroeconomics for advanced undergraduate and graduate students. Introduction to graduate-level research in this field. Different topics each week, with presentation and discussion of new papers. Research in progress presented, discussed, and criticized by visiting experts, UCLA faculty members, and advanced graduate students. Concurrently scheduled with courses C166A-C166B-C166C. S/U (C226B) and S/U or letter (C226A, C226C) grading.

228A-228B-228C. Proseminars: Monetary Economics. (4–4–4) Seminar, three hours. Workshops for predissertation and dissertation writers. Literature surveys or research in progress presented, discussed, and criticized by visiting experts, UCLA faculty members, advanced graduate students. Research paper or presentation required. S/U grading.

229A-229B-229C. Workshops: Monetary Economics. (4–4–4) Lecture, three hours. Workshops for predissertation and dissertation writers. Research in progress presented, discussed, and criticized by visiting experts, UCLA faculty members, advanced graduate students. Research paper required. S/U grading. Also see Management 239A, 239B, 239C (PhD sequence in finance), 239D (advanced topics in finance), 239E, 239Y, 239Z (finance workshops).

Econometrics

231A. Advanced Econometrics I. (4) Lecture, three hours. Econometric methods for microeconomic models. Topics include identification, nonparametric estimation, limited dependent variable models, duration, panel data, tests of hypotheses. S/U or letter grading.

231B. Advanced Econometrics II. (4) Lecture, three hours. Econometric methods for empirical research in economics. Topics include simultaneous equations, instrumental variables, panel data, treatment effects, and point and partial identification, with applications in static and dynamic models, social interactions, matching, and network formation. S/U or letter grading.

231C. Advanced Econometrics III. (4) Lecture, three hours. Advanced topics in econometrics that may vary year to year. Current topics include empirical process methods with applications to quantile regression and general M-estimation, estimation and inference methods in high-dimensional models, including LASSO and Dantzig selector techniques, and bootstrap. May be repeated for credit. S/U or letter grading.

232A-232Z. Topics in Econometrics. (4 each) Lecture, three hours. Recent research on economic topics. Courses in this sequence not ordinarily given every year. May be repeated for credit. S/U or letter grading.

233A. Bayesian Econometrics. (4) Same as Political Science M208E.) Lecture, three hours. Current research in econometrics. Content varies. May be repeated for credit. S/U grading.


Economic History


246A-C246B-C246C. Seminars: Economic History. (4–4–4) Seminar, three hours. Designed for predissertation and dissertation writers. Overview of most current developments in economic history for advanced undergraduate and graduate students. Introduction to graduate research in the field. To ferent topic each week, with presentation and discussion of new papers. Research in progress presented, discussed, and criticized by visiting experts, UCLA faculty members, and advanced graduate students. Concurrently scheduled with courses C186A-C186B-C186C. S/U grading.


249A-249B-249C. Von Gremp Workshops: History of Entrepreneurship in U.S. Economy. (4–4–4) Lecture, three hours. Designed for graduate students. Workshops for advanced graduate students. Research in progress presented, discussed, and criticized by visiting experts, UCLA faculty members, and advanced graduate students. S/U or letter grading.

Public Finance

251A. Theory and Policy of Taxation. (4) Lecture, three hours. Examination of influence of taxation on economic efficiency and incidence of taxation in first part of course. Topics include tax equivalences, Ramsey optimal taxation, and welfare economics. Other topics may be added at the discretion of the instructor. S/U or letter grading.

251B. Cost-Benefit Analysis of Public Projects and Programs. (4) Lecture, three hours. Requisite: course 251A. Presentation of those aspects of applied capital theory that are relevant in decisions concerning investment projects in first part of course. Differences between public and private benefits and costs (shadow prices) for foreign exchange, capital, and labor, with applications to public investment decisions, in second part of course. S/U or letter grading.


254B-254C. Workshops: Public Economics. (4–4–4) Lecture, three hours. Designed for graduate students. Workshops for advanced graduate students. Research in progress presented, discussed, and criticized by visiting experts, UCLA faculty members, visiting experts. S/U grading.

Applied Microeconomics


251B. Labor Economics II. (4) Lecture, three hours. Requisite: course 251A. Models of life-cycle earnings and labor behavior, with particular emphasis on recent literature examining labor force behavior and experience of women. S/U or letter grading.

252A-252Z. Topics in Labor Economics. (4 each) Lecture, three hours. Current research in labor economics. Content varies. May be repeated for credit. S/U or letter grading.

262D. Development Economics. (4) Lecture, three hours. Preparation: completion of first-year graduate microeconomics and econometrics courses. Coverage of important key topics in microeconomics of development, such as health, education, risk coping, savings, credit, and household economics. Discussion of empirical methods. S/U or letter grading.

263. Public Sector Microeconomics. (4) Lecture, three hours. Preparation: completion of first-year graduate microeconomics and econometrics courses. Coverage of topics related to tax incidence, deadweight loss, public expenditure, income taxation and transfer programs, with emphasis on impacts of such programs on labor supply and savings, social security, unemployment insurance, and other income programs. S/U grading.

263. Topics in Urban Economics. (4) Lecture, three hours. Current research in urban and regional economics. Content varies. Serves as forum for presentation of papers on urban economics by students, UCLA faculty members, and visitors. May be repeated for credit. S/U or letter grading.


2C66A-C266B-C266C. Seminars: Labor Economics. (4–4–4) Seminar, three hours. Designed for pre-dissertation and dissertation writers. Overview of most current research in labor economics for advanced undergraduate and graduate students. Introduction to graduate-level research in this field. Different topic each week, with presentation and discussion of new papers. Research paper required. S/U or letter grading. Also see Management 262 (pricing policy)

International Economics


282A-282Z. Topics in International Economics. (4–4) Lecture, three hours. Research in international economics. Content varies. May be repeated for credit. S/U or letter grading.

284. Soviet Economic Theory and Organization. (4) Lecture, three hours. Overall strategy of planning used by U.S.S.R. planners and specific planning methods, interpreted broadly to cover not only instructions and objectives but also institutional arrangements. Tended and unintended outcomes of methods. S/U or letter grading.

Development Economics

286A. Economic Development. (4) Lecture, three hours. Requisites: courses 201C, 202C. Study of theoretical and empirical approaches related to development issues in area of asset pricing, broadly defined. Presentations or research paper required. S/U or letter grading.


287B. Economic Development in East Asia. (4) Lecture, three hours. Recent economic history of East Asia, focusing on postwar development of Japan, Korea, and China. Emphasis on role of international investment and trade, especially with U.S., in area's economic development. May be repeated for credit. S/U or letter grading.

287C. Topics in Economic Development. (4) Lecture, three hours. Research in progress presented, discussed, and criticized by visiting experts. UCLA faculty members, advanced graduate students. Research paper required. S/U or letter grading.


291A. Asset Pricing. (4) Lecture, three hours. Introduction to models of finance. Recent work in modeling valuation of firms, and embedding of these models in general equilibrium for purposes of understanding market valuation of corporation sector as whole. Introduction also to continuous-time search-and-matching models and their applications to financial economics. S/U or letter grading.

291B. Asset Pricing. (4) Lecture, three hours. Recent theoretical and empirical research on monetary policy. Includes issues such as how monetary policy is implemented in practice. What are effects of different monetary policy tools, what restrictions on government derive from policy, and problems of measuring mechanisms of monetary policy, welfare costs of inflation, how does monetary policy interact with credit markets and how does this affect asset prices. S/U or letter grading.

2C66A-C266B-C266C. Seminars: Asset Pricing. (4–4–4) Seminar, three hours. Designed for pre-dissertation and dissertation writers. Overview of most current developments in asset pricing theory for advanced un-undergraduate and graduate students. Introduction to graduate-level research in this field. Different topic each week, with presentation and discussion of new papers. Research in progress presented, discussed, and criticized by visiting experts. UCLA faculty members, and advanced graduate students. Concurrently scheduled with courses C164A-C164B-C164C. S/U (C266B) and S/U or letter (C266A, C266C) grading.

Teaching Practicum

375. Teaching Apprentice Practicum. (1 to 4) Seminar, to be arranged. Preparation: apprentice personnel employment as teaching assistant, associate, or fellow. Teaching apprenticeship under active guidance and supervision of regular faculty member responsible for curriculum and instruction at UCLA. May be repeated for credit. S/U or letter grading.

Applied Economics (MAE)

401A. Microeconomic Theory. (4) Lecture, three hours. Limited to Master of Applied Economics students. Coverage of fundamentals of optimization, choices by price-taking agents, consumer and production functions, monopoly and perfect competition, Walrasian equilibrium and two welfare theorems, constant returns to scale, economy choice, time value, uncertainty, information and market design. Letter grading.
401B. Applied Economics. (4) Lecture, three hours. Limited to Master of Applied Economics students. How to be sophisticated users and producers of research on issues and policies in several core areas of labor, public, and health economics. Rigorous analyses of complex policy questions with cutting-edge empirical analysis. Letter grading.

402A. Macroeconomic Theory. (4) Lecture, three hours. Limited to Master of Applied Economics students. Introduction to main topics of graduate macroeconomic theory, including aggregate supply and demand, models of economic growth, supply and demand of factors of production, business cycle models, unemployment, monetary policy and inflation, and fiscal policy and deficits. Letter grading.

402B. Applied Macroeconomics. (4) Lecture, three hours. Limited to Master of Applied Economics students. Study of alternative theories of causes of unemployment and inflation, with focus on Keynesian approach to monetary and fiscal policy and modifications and extensions of Keynesian ideas designed to explain financial crises. Letter grading.


404A. Writing and Presentation Skills for Economists I. (4) Seminar, three hours. Limited to Master of Applied Economics students. Designed to help students develop communication and presentation skills essential for success in any aspect of business. Practice in writing economics documents for variety of professional audiences. Writing taught as process—brainstorming, collaborating, continually revising, and challenging ideas. Presentation skills to focus on presenting information clearly and organizing ideas, with emphasis on role of audience when presenting, presenting information clearly and organizing ideas, and guiding students to extract actionable business insights for economic applications. Letter grading.


406. Money and Banking. (4) Lecture, three hours. Limited to Master of Applied Economics students. Introduction to models and data used to understand connection between asset prices, health of financial sector, and macroeconomic performance, including analysis of real-world cases to gain introduction to questions being addressed on research frontier. Letter grading.


408. Environmental Economics. (4) Lecture, three hours. Limited to Master of Applied Economics students. Introduction to major ideas in environmental economics by studying causes and consequences of pollution, with special emphasis on understanding China’s environmental challenges and policy options. Letter grading.


411. Inequality and Macroeconomy. (4) Lecture, three hours. Limited to Master of Applied Economics students. Introduction to analysis of economic inequalities and interplay between inequality and macroeconomic outcomes, including market forces and institutions in shaping dynamics of economic inequality? What are consequences of globalization on distribution of income within and between countries? Does inequality harm economic growth and macroeconomic stability? How do macroeconomic policies and structural reforms affect distribution of income and wealth? Use of simple models and empirical analysis by taking global and historical perspective. Discus- sions about inequality in U.S. and Europe over last two centuries, as well as challenges raised by recent inequality trends in China, India, and Latin America. Letter grading.


415. Evidenced-Based Policy Analysis in Labor, Public, and Health Economics. (4) Lecture, three hours. Limited to Master of Applied Economics students. Introduction to policy questions in labor, public, and health economics, including health care, education, unemployment, training programs, and welfare. Economic principles at heart of these topics and mapping them to scientifically evaluate policies that affect them, including data, current case evidence, cutting-edge empirical methods, and their rela- tion to microeconomic theory. Letter grading.

421. Incentives, Information, and Markets. (4) Lecture, three hours; discussion, one hour. Limited to Master of Applied Economics students. Introduction to concepts of information economics that lie at heart of modern economics and application of them to understand incentives within firms, as well as competi- tion between them. Study of theoretical models and 422. International Economics. (4) Lecture, three hours; discussion, one hour. Limited to Master of Applied Economics students. Investigation of several theoretical frameworks in international economics followed by applications to empirical questions. Neo- classical, new trade models, and growth of international trade. Linkages between trade, economic growth, and policies. Case studies and empirical papers focus on understanding determinants of trade and effects of the current account on measures of aggregate and distributional effects of inter- national trade. Discussion of recent research on effects of NAFTA and Brexit, effect of trade on inequality in developed and developing countries, and impact of infrastructure investments on trade and development. Letter grading.


424. Income Inequality. (4) Lecture, three hours; dis- cussion, one hour. Limited to Master of Applied Eco- nomics students. Investigation of rise of earning inequality (with emphasis on U.S.), focusing on learning how to use models and data to quantify impact of range of forces on inequality. Overview of broad em- pirical trends, with emphasis on how to document these facts objectively. Consideration of three classes of potential explanations for these pat- terns: international connections (e.g., trade and immi- gration), institutional change (e.g., minimum wage and unionization), and technical change (e.g., computeri- zation and spread of robots). Focus on quantifying these forces ourselves. Study of top income inequality, why it has extremely grown, become much richer than very rich? Focus on CEO compensation. Letter grading.

425. Machine Learning I. (4) Lecture, three hours; discussion, one hour. Limited to Master of Applied Economics students. Covers set of fundamental ma- chine learning algorithms, models, and theories, and introduces advanced engineering practices for imple- menting data-intensive intelligent systems. Topics in- volve both supervised methods (e.g., support vector machine, neural network, etc) and unsupervised methods (e.g., clustering, dimensionality reduction, etc.), and their applications in classification, regres- sion, data analysis, and visualization. Letter grading.

426. Knowledge Discovery and Data Mining. (4) Lecture, three hours; discussion, one hour. Limited to Master of Applied Economics students. Study of theo- retical and practical techniques and tools of data mining and knowledge discovery. Topics include data pro- cessing, association rules, supervised learning, clas- sing, etc., and their applications in visualization, so- cial network analysis, sentiment analysis, and decision analysis. Focus on making sense of large-scale or web-scale dataset, and providing students with first- hand project experiences. Letter grading.

427. Applied Machine Learning. (4) Lecture, three hours; discussion, one hour. Limited to Master of Applied Economics students. Preparation: basic understanding of technology principles, basic programming skills, sufficient mathematical background in probability, statistics, and matrix analysis. Foundation course with primary application to data analytics. In- tended to be accessible to students from background in sciences such as economics, mathematics, and to students from less technical backgrounds. Covers some fundamental topics in machine learning such as Bayesian learning, optimization for learning, metric
learning, and various classification, regression, clustering techniques, and other advanced topics. Real-world data-intensive problems. Letter grading.

428. Health Care Analytics: Methods and Applications. (4) Lecture, three hours; discussion, one hour. Limited to Master of Applied Economics students. Introduction to basic concepts of health economics. Development of skills in economic modeling and real-world data analysis. Written policy briefs and business cases evaluating pros and cons of different approaches to improving health care markets. Letter grading.

429A. Professional Development for Emerging Economists I. (2) Seminar, two hours. Enforced requisites: course 229A. Limited to Master of Applied Economics students. Designed to help students develop professional skills essential for success in professional business settings. Aids students in translating topics covered in other courses into language and format that is accessible to industry/non-academic settings. Students conduct labor market research, identify and analyze industry trends, and develop targeted plan to achieve professional success. Exploration of skills identification, goal setting, researching employment market, and résumé writing. Letter grading.

429B. Professional Development for Emerging Economists I. (2) Seminar, two hours. Enforced requisites: course 229A. Limited to Master of Applied Economics students. Designed to help students develop professional, communication, and presentation skills essential for success in professional business settings. Aids students in translating topics covered in other courses into language and format that is accessible to industry/non-academic settings. Students practice presenting for variety of professional audiences. Exploration of presentation skills, personal branding, salary negotiation, and interviewing techniques. Letter grading.


431. Introduction to Econometrics, Cross-Sectional and Panel Data, and Time Series. (4) Lecture, three hours; discussion, one hour. Limited to Master of Applied Economics students. Introduction to econometrics, cross-sectional and panel data, and time series methods used in economics, business, and government. Topics include estimation, simple and multiple regression, cross-sectional and panel data, instrumental variables, and estimation with stationary/non-stationary processes. Letter grading.

432. Data Science for Financial Engineering. (4) Lecture, three hours; discussion, one hour. Limited to Master of Applied Economics students. Data science provides many useful tools for modeling financial data and testing hypotheses on how markets work, and prices are formed. Study of these important tools. Focus on econometric models and methods to understand financial market dynamics. Topics include returns of financial assets, statistical tests on financial market efficiency, linear time series models, time-varying expected return models, heteroscedastic volatility models, optimal portfolio choice problem, capital asset pricing models, factor models, portfolio allocation, tracking and risk management. Letter grading.


434. Machine Learning and Big Data for Economists. (4) Lecture, three hours; discussion, one hour. Limited to Master of Applied Economics students. Discussion of some machine learning techniques including lasso, regression trees, random forests, and neural networks. Covers most recent developments at intersection of machine learning and econometrics, now commonly referred to as double machine learning. Study of double machine learning in detail, and discussion of how to apply it to enhance analysis of classical econometric problems, such as program evaluation and demand estimation. Letter grading.

435. Principles of Big Data Management Systems. (4) Lecture, three hours; discussion, one hour. Limited to Master of Applied Economics students. Focus on modern data management systems that are used in data analytics. Students are exposed to cutting-edge data management concepts and systems and provided with working knowledge needed to manage large-scale data. Covers modern data management techniques of cloud storage systems, NoSQL databases, and map-reduce computing paradigm. Letter grading.

Special Studies

495. Teaching College Economics. (2) Seminar, one hour; laboratory, three hours. Designed for graduate students. Required of all new teaching assistants. Classroom practice in teaching, with individual and group instruction on related educational methods, materials, and evaluation. May be repeated for credit. S/U grading.

501. Cooperative Program. (2 to 8) Tutorial, to be arranged. Preparation: consent of UCLA graduate advisor and graduate dean, and host campus instructor, department chair, and graduate dean. Used to record enrollment of UCLA students in courses taken under cooperative arrangements with USC. S/U grading.

596. Individual Study. (2 to 8) Tutorial, to be arranged. Directed individual study or research. S/U grading.

597. Individual Study: Graduate Examinations. (2 to 8) Tutorial, to be arranged. Directed individual study in preparation for MA comprehensive examination or PhD qualifying examinations. S/U grading.


EDUCATION

Graduate School of Education and Information Studies

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Mitchell J. Chang, PhD
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Louis M. Gomez, PhD
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Tyrence C. Howard, PhD
Sylvia Hurtado, PhD
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Catherine Lord, PhD, in Residence
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Mark P. Hansen, PhD
Robert T. Terrasini, PhD (Morgan and Helen Chu Professor of Asian American Studies)
Carlos A. Torres, PhD
Noreen M. Webb, PhD
Jeffrey J. Wood, PhD

Professors Emeriti

Marvin C. Alkin, EdD
Alexander W. Astin, PhD (Allan Murray Carter Professor Emeritus of Higher Education)
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Associate Professors

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José-Felipe Martínez, PhD
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Eddy Mukudi Omwami, PhD
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Assistant Professors

Jennie K. Grammer, PhD
Lorena Guillén, PhD
Mark P. Hansen, PhD, in Residence
Jessica C. Harris, PhD
Ozan Jaquette, PhD

Enrollment of UCLA students in courses taken under cooperative arrangements with USC. S/U grading.


S/U grading.
The Education and Social Transformation premajor
or first-term transfer students who want to declare
Students entering UCLA directly from high school
sion is based on academic performance in prepara-
Education and Social Transformation major. Admis-
Admission

Learning Outcomes
The Education and Social Transformation major has
the following learning outcomes:
• Understanding of educational landscape
• Understanding of learning and human develop-
ment
• Understanding of education and educational
institutions in social, cultural, and historical
dynamics
• Understanding of organizational cultures and
dynamics
• Ability to interpret social data and research and
critically evaluate research studies
• Ability to apply these understandings to imag-
ine, assess, and implement solutions to specific
problems in education
• Clear and cogent communication
• Understanding of multiple perspectives, diver-
sity, pluralism, and social justice

Admission
Students must submit an application to declare the
Education and Social Transformation major. Admis-
sion is based on academic performance in prepara-
tion for the major courses and overall academic re-
cord at UCLA.

Premajor
Students entering UCLA directly from high school
or first-term transfer students who want to declare
the Education and Social Transformation premajor
at the time they apply for admission are automati-
cally admitted to the premajor.

Students identified as Education and Social Trans-
formation premajors may formally petition to de-
clare the Education and Social Transformation ma-
jor after completing the required lower-division
courses and 45 lower-division units.

Current UCLA students must file an application in
the Education Office of Student Services. All stu-
dents are identified as Education and Social Trans-
formation premajors until they satisfy the following
minimum requirements: 1) achieve grades of C or
better in all lower-division course requirements, 2) file
an application to enter the major before com-
pleting 135 quarter units.

Preparation for the Major
Required: Education 10 or 11, and 35. Preparation for
the major courses must be completed with a C
grade or better.

Transfer Students
Transfer applicants to the Education and Social Transformation major with 90 or more units are
considered for admission based on academic achievement. Transfer credit is subject to depart-
ment approval. Consult an undergraduate coun-
selor before enrolling in any courses for the major.

Refer to the UCLA transfer admission guide
for up-to-date information regarding transfer selection
for admission.

The Major
Required: at least 9 upper-division courses distrib-
uted as follows: (1) two courses from each of the fol-
lowing three areas of competency: Histories and
Philosophies of Education—Education M102, M103,
M108, 122, 124, 125, 129, 130, 134, 147, 152A, 152B,
152C, 162, 164; Contexts of Teaching, Learning, and
Development—Education M104, 118, 120, 123, 127,
132, 133, 136, 143, M145A, M145B, M145C, C160,
CM163, 166, CM178, M190, M190SL, M194A, M194B,
M194C, 195, 196C, 196D; Inquiry and Design for
Learning—Education 139, 150, 188A, 188B; (2) Educa-
tion 180; (3) Education 181; (4) at least one additional
course in education, for a minimum of 40 total up-
ner-division units.

At least one course taken for the major must satisfy
the community engagement requirement.

Each course must be taken for a letter grade, and
students must have an overall grade—point average
of 2.0 or better in the major.

Education Studies Minor
The Education Studies minor is intended to address
the diverse information needs of the UCLA under-
gradaute community to (1) allow students to learn
more about the multitude of contemporary profes-
sional research issues confronting the field of edu-
cation, (2) understand the complex interactions be-
tween the legal, social, political, and economic
forces that influence and shape educational policies
in America, (3) provide an introduction for students
who wish eventually to pursue careers in education
either as teachers or researchers.

To enter the minor, students must have completed
one education, have at least sophomore standing
with a minimum overall UCLA grade—point aver-
age, and file an admission application with the Ed-
ucation Studies academic adviser in the Office of
Student Services, 1002 Moore Hall. Applicants are
expected to be committed to inquiry of issues cen-
tral to educational research and practice. Students
must follow the program of study in effect at the
time of their admission. Students completing their
sophomore year are encouraged to apply.

Required Courses (28 units minimum): Any seven
education courses (minimum of 4 units each), one
of which may be a lower-division course.

A minimum of 20 units applied toward the minor
requirements must be in addition to units applied
ward major requirements or another minor.

Each minor course must be taken for a letter grade.
Successful completion of the minor is indicated on
the transcript and diploma.

Graduate Study
Official, specific degree requirements are detailed in
program requirements for UCLA graduate
degrees, available at the Graduate Division website.
In many cases, more detailed guidelines may be
outlined in announcements, other publications,
and websites of the schools, departments, and
programs.

Graduate Degrees
The Department of Education offers Master of Arts
(MA) and Doctor of Philosophy (PhD) degrees in
Education, Master of Education (MEd) degree, Doc-
tor of Education (EdD) degree, Doctor of Philo-
osophy (PhD) degree in Special Education (with Califor-
nia State University, Los Angeles), and Doctor of Ed-
ucation (EdD) degree in Educational Administration
(with UC Irvine).

One articulated degree program (Education MEd/
Latin American Studies MA) and one concurrent de-
gree program (Education MEd, MA, EdD, or PhD/
Law JD) are also offered.

Education
Lower-Division Courses
10. Introduction to Educational Issues and Schol-
arship. (5) Lecture, four hours; discussion, one hour. Schools are
primary institutions charged with responsibility of pre-
paring young people for their roles as citizens so that
they can participate in our democracy. Public schools
also serve as key sites where two essential, and at
times conflicting, functions are carried out: students
are sorted based on measures (and perceptions) of
their ability to fill occupations and roles that are essen-
tional experience, and students are educated in hopes that next generation will acquire knowledge, creativity, and problem-solving skills to solve problems created by previous generations. Focus on understanding challenges, contradictions, and complexities associated with carrying out these functions, Letter grading.

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many research projects at UCLA. P/NP grading.

35. Introduction to Inquiry and Research in Education. (5) Lecture, two hours; discussion, two hours. Introduction to empirical and analytical educational research. Students learn to engage in evidence-based learning how to find, interpret, and evaluate educational research. Overview of different methods of conceptualizing inquiry and gathering evidence, including qualitative approaches (e.g., ethnography, semi-structured interviews, case study), quantitative approaches (e.g., survey, measurement, experimental, descriptive), mixed methods, and design-based research. Highlights multiple methods of inquiry and research, ethics of conducting research in social sciences, and norms of conducting and reporting research in field of education. Overview of selected strands of student-oriented research in education. Letter grading.

89. Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to lower-division lecture course. Exploration of topics in greater depth through supplemental readings, papers, and other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors credit noted on transcript. P/NP or letter grading.

89HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors and departmental honors programs. Designed as adjunct to lower-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors credit noted on transcript. Letter grading.

92F. Academic Success in Undergraduate Experience. (2) Lecture, one hour; discussion, one hour. Designed for first-year or transitioning students to promote understanding of factors involved in making adjustments to college experience, both academic and economic forces impact Chicana/Chicano education. Letter grading.

M103. Asian American Education and Schooling. (4) [Same as Asian American Studies M114.] Seminar, four hours. Examination of existing body of research from various disciplines on Asian/Pacific American educational experiences. Letter grading.

M104. Introductions to Arts Education for Multiple Publics: Theory and Practice. (4) [Same as Arts Education M102.] Seminar, three hours; outside study, nine hours. Introductory course with focus on arts education for multiple publics in inner-city settings. Study of issues of diversity, creativity, and social justice as students develop, implement, and assess original syllabi, lesson plans, and community projects. Exploring arts in learning, K-12, and arts organizations. Collaboration with partner schools in planning, teaching, and evaluation of arts education programs in dance, music, theater, and visual arts. Letter grading.

M108. Sociology of Education. (5) [Same as Sociology M175.] Lecture, four hours; discussion, one hour. Study of how U.S. educational system both promotes socioeconomic opportunities and maintains so-cioeconomic inequalities. Perspectives of prosocial behavior and enhancement. Examination of role of education in U.S. society; trends in educational attainment; ways in which family background, class, race, and gender affect educational achievements; stratification between and within schools; effects of education on socioeconomic attainment, family, health, attitudes, and social participation; educational policies to improve school quality and address socioeconomic inequalities. Letter grading.

118. Literacy in Society. (5) Lecture, four hours. Literacy plays significant role in cognition and language, political governance and law, and economic, social, and personal values of these aspects of literacy and their implications for teaching and learning. Examination of literacy in workplace, healthcare, and community. Consideration of new literacies, interdisciplinary techniques, and technology, and impact of illiteracy on income and opportunity. Letter grading.

120. Early Childhood Development. (5) Seminar, four hours. Development of positive social behaviors and their enhancement. Broad overview of children's psychological development, with emphasis on personal, social, and emotional attributes of preschool and elementary school child. Aspects of prosocial behavior and aggression. Enhancement of prosocial behavior and modification of such negative behaviors as aggression. Review and evaluation of contemporary educational programming positive social behaviors in elementary schools. Methodological aspects of child development. Overview of early childhood education and issues related to role of family, school, and television in child development. Letter grading.

122. Perspectives on American College. (5) Seminar, four hours. Examination of role colleges and universities play in larger cultural life of U.S. society. Use of analysis of student movements as vehicle for exploration of key sociological, political, and cultural developments on U.S. campuses. Emphasis on interrelated research, academic, social, and policy issues underlying diverse system of higher education. Letter grading.

123. Teaching Profession. (5) Seminar, four hours. Exploration of traditional and alternative teaching practices and public responses to teachers teaching and students learning. Examination of education in so-cioeconomic context and discussion of some philosophical questions that challenge teaching profession. Letter grading.

131. History of Higher Education. (5) Seminar, four hours. Examination of major eras in history of higher education. Topics include issues concerning access, diversity, parental choice, cultural literacy, teacher em-powerment, and role of people of color. Concurrently scheduled with course C209A. Letter grading.

132. Autism: Mind, Brain, and Education. (5) Lecture, two hours; discussion, two hours. Focus extensively on understanding educational experiences of following groups in U.S.: African Americans, Asian Americans, and Pacific Islanders/Chicanos/Latinos/Latinos, and low-income white Americans. Examination of how historical development of public education in U.S. has influenced its present form. Critical look at current issues and policy debates in education, including debate over school reform, bilingual education, and affirmative action. Letter grading.

133. Autism: Mind, Brain, and Education. (5) Lecture, two hours; discussion, two hours. Focus extensively on understanding educational experiences of following groups in U.S.: African Americans, Asian Americans, and Pacific Islanders/Chicanos/Latinos/Latinos, and low-income white Americans. Examination of how historical development of public education in U.S. has influenced its present form. Critical look at current issues and policy debates in education, including debate over school reform, bilingual education, and affirmative action. Letter grading.

134. Introduction to Exceptional Learners. (4) Lecture, two hours; discussion, one hour. Study of characteristics and related educational needs of students (preschool through high school) who vary in mental, physical, psychological, and social characteristics. Focus on disabilities, various models of gifted/talented education. Emphasis on inclusion, and legal, social, and philosophical issues associated with it. Students learn perspectives from disability studies and engage in class activities designed to challenge students to put inclusion into practice. Students develop understanding of various areas and exceptionalities of special education with emphasis on role of students in special education settings. Letter grading.

M136. Working Families and Educational Inequalities in Urban Schools. (4) [Same as Labor Studies M149.] Lecture, three hours; one lecture, three hours. Exploration of complex relationship between working-class and poor communities and inequalities in Amer-ican urban schools. Drawing on multiple disciplinary frameworks that address issues of race, ethnicity, and immigration, and concerns. Schools viewed as sites where inequalities are produced and resisted. Review of history of exclusionary treatment and diverse conceptual frameworks that education researchers have used to un-derstand notion of inequality, access to quality public education, and how race, ethnicity, and class affect school experiences for working-class and poor communities. Exposure to multiple communities and opportunities to investigate issues of working-class families and inequalities as they relate to students’ own communities and experiences. P/NP or letter grading.
137. Critical Digital Media Literacies. (4) Lecture, four hours. Students question relationships with digital media and information society and explore how media and information communication technologies are improving society, strengthening democracy, and opening up opportunities for challenging hegemony and promoting social transformation. Problematization of social media and questioning of ways it is being used to surveil, capture data, spread hate, mislead, distract, and deceive. Students analyze and critique visual media representations, question process of normalizing dominant ideologies, and create counter-hegemonic media messages. Combines theoretical foundation of critical and cultural theories with practical applications of new digital media and technology, as well as traditional print-based means of communication. Exploration of media representations of race, class, gender, sexual orientation, and other identity markers. Students analyze and create media projects related to education. Letter grading.

138. Cognitive Development and Schooling. (5) Lecture, four hours; discussion, one hour. Overview of theories, methods, and research on children's cognitive development and implications of this work for educational practice. Covers range of research from different perspectives, from domains such as developmental psychology, cognitive psychology, developmental cognitive neuroscience, and education. Students learn about basic cognitive processes. Exploration of various contexts—those at home, early-care settings, and school—impact children's development. Letter grading.

139. Educational Program Evaluation. (5) Seminar, four hours. Stages and methods for conducting evaluations of educational and social programs, with emphasis on evaluation approaches that are theoretically grounded, methodologically rigorous, practical, and useful. Letter grading.

143. Understanding Pathways to College. (4) Lecture, two hours; discussion, two hours. Examination of access across K-12 and higher education to underrepresented students in Los Angeles area schools. Letter grading.

M145A-M145B. Restoring Civility: Understanding, Using, and Resolving Conflict. (4-4) (Same as Chicana and Chicano Studies M174A-M174B) Lecture, one hour; fieldwork, three hours. Requisite: courses M145A, M145B. Limited to juniors/seniors. Application of student knowledge and experience to help students in partner schools to develop peer mediation programs to be sustained by future UCLA students. Work at partner school sites and demonstration of firm grasp of concepts of conflict resolution through weekly reflective discussions, journaling through conflict resolution and other forms of civic entry. Application of critical thinking, review of literature from earlier courses, and reflection on student field experiences to deepen understanding of violence, its causes, and what schools can do to mitigate it. Letter grading.

147. Lesbian, Gay, Bisexual, and Transgender Issues in Education and Law. (4) Lecture, four hours. Lesbian, gay, bisexual, and transgender-related controversies that arise in schools, colleges, and universities today and how they are being addressed by legal and education communities. In particular, examination of real-life consequences of current laws and exploration of possibilities to make things better for all persons. Letter grading.

150. Introduction to Quantitative Research in Education: Claims and Evidence. (5) Lecture, two hours; discussion, two hours. Requisite: course 35. Introduction to four conceptual tools used to evaluate soundness of conclusions drawn from research evidence: notions of internal validity, statistical validity, construct validity, and external validity. Statistical validity requires basic fluency with quantitative data analysis, which students learn using statistical software R. Analysis of cases, art and craft, and debate over how to frame quantitative education research and how research findings get translated when they are reported for popular media audiences. Quantitative background is not required. Letter grading.

152A. Globalization and Learning. (4) Lecture, two hours; discussion, two hours. Introduction to different conceptualizations of globalization and their relationship to educational processes and learning in contemporary societies. Discussion of several concepts and theoretical lenses as basis for approaching and understanding how dialectics of global and local are affecting educational systems and learning over lifespan. Letter grading.

152B. Global Citizenship Education. (4) Lecture, four hours. Exploration of issues of global citizenship in education and society as whole by analyzing critical challenges and opportunities that focus on multiple layers of theoretical, empirical, and practical implementation of global citizenship education. Examination of how global citizenship education and educational practices sustain and undermine efforts to impact life, actions, policies, and practices of educators, students, non-government organizations, governments, multinational organizations, and other key players in social systems. Exploration of how global citizenship education impacts our worldview, teaching, and learning as we strive to envision and work toward more just and sustainable society. Letter grading.

152C. Global Citizenship Education. (4) Lecture, four hours. Questions regarding nature and possibility of education that can foster global citizenship necessary to understand and resolve world's most pressing issues. Focus on local global and global citizenship education. Using local and global research, exploration and analysis of various perspectives, curricula, and pedagogies pertaining to teaching and implementing global citizenship education at different levels of education. Letter grading.

C160. Theory and Practice of Intergroup Dialogue: Building Facilitation Skills. (4) Seminar, four hours. Topics include: intergroup relations, intercultural and dialogic communication theories, methods for reconciling and bridging differences in schools and communities, research and evaluation of intergroup dialogues in educational settings, methods for improving intergroup relations, and core competencies for planning, delivering, and evaluating intergroup dialogues in multicultural settings. While providing foundational grounding in theory and pedagogy of intergroup dialogue, particular attention to relationships between intergroup dynamics, structural inequalities, systems of privilege and oppression, and mental health outcomes and disparities among populations. Concurrently scheduled with course C244. Letter grading.

162. Policy Analysis and Real Politics of Education. (5) Lecture, two hours; discussion, two hours. Exploration through a variety of policy analysis and actual workings of policy systems. Selected topics include achievement standards and assessment, school finance, equal access to education, and actual workings of policy systems. Systems of thought and production techniques to inform student analysis of media and critical media literacy projects. Concurrently scheduled with course CM178L. Letter grading.

163. Narratives of Justice: Disrupting School-to-Prison Pipeline—Arts, Activism, and Agency. (4) (Same as African American Studies CM113.) Lecture, four hours; discussion, one hour. Exploration of policies and other forms of engagement engaging school-to-prison pipeline. Concurrently scheduled with course CM229B. P/NP or letter grading.

164. Race and Education: Access, Equity, and Achievement. (5) Seminar, four hours. Social/psychological perspective on education, with particular attention to race, ethnicity, and inequality. Study of structural, social, and personal determinants of educational outcomes. Consideration of relationship of schools to social context and other societal institutions. Examination of how education sets life trajectory in America and effects of race/ethnicity on access to educational opportunities in our society. Letter grading.

166. Language, Literacy, and Academic Development: Educational Considerations for School-Age Multilingual and English Language Learner Students. (5) Seminar, five hours. Use of child-centered approach to examine instructional strategies and assessment practices with preK-12 multilingual and English language learner (ELL) students who are learning second language. Focus on competing models for teaching English (and possibly additional languages) in school. Critical comparison of effectiveness of English-only programming with dual-language approaches (e.g., two-way immersion, transitional bilingual education) and roles of summative and formative assessments in educational decision making with multilingual and ELL students. Letter grading.

170C. Experiential Learning in Secondary Classrooms. (Law) (2) Lecture, one hour; fieldwork, four hours. Training and supervised practice for under-graduate mathematics students interested in teaching in secondary classrooms, including working with 7th- through 12th-grade students. Focus on law requirements from California Commission on Teacher Credentialing. Focus on legal and ethical concerns of teaching, culture of schools, issues of bullying, building of classroom community, and learning theories and practices that engage diverse groups of students in classrooms. Active engagement in reflection on issues in schools in which students work. Letter grading.

170D. Experiential Learning in Secondary Classrooms. (Health) (4) Lecture, one hour; fieldwork, four hours. Training and supervised practice for under-graduate mathematics students interested in teaching in secondary classrooms, including working with 7th- through 12th-grade students. Focus on law requirements from California Commission on Teacher Credentialing. Focus on law requirements from California Commission on Teacher Credentialing. Focus on legal and ethical concerns of teaching, culture of schools, issues of bullying, building of classroom community, and learning theories and practices that engage diverse groups of students in classrooms. Active engagement in reflection on issues in schools in which students work. Letter grading.

CM178. Critical Media Literacy and Politics of Gender: Theorizing in Context. (4) (Same as Gender Studies CM178B.) Seminar, three hours. Corequisite: course CM178L. Use of range of pedagogical approaches to theory and practice of critical media literacy that necessarily involves examination of new technologies and media forms. Study of both theory and production techniques to inform student analysis of media and critical media literacy projects. Concurrently scheduled with course CM178L. Letter grading.

CM178L. Critical Media Literacy and Politics of Gender: Laboratory. (2) (Same as Gender Studies CM178L) Laboratory, two hours. Corequisite: course CM178L. Hands-on production experience as integral component of course CM178. Concurrently scheduled with course CM178. Letter grading.

180. Orientation to Community Engagement. (4) Seminar, four hours. First course in three-part series to support community engagement for Education and Social Transformation major capstone project. Introduction to conceptions and contexts of community engagement, focusing on possibilities and
complexities of critical and asset-based approaches to community engagement. In preparation for students' own community engagement experiences in community organizations, early childhood centers, or schools in Los Angeles, emphasis on reflecting on personal, identifying your power and privilege, and understanding relationships between systemic issues and community engagement. Letter grading.

184. Variable Topics in Teaching and Learning. (2) Lecture, one hour. Variable topics course, with emphasis on cognitive learning and motivation theories and their relevance to strategies for developing curricular instructional techniques that and training that contribute to tutoring, counseling, and other instructional assistance in various school settings. P/NP or letter grading.

187. Variable Topics in Education. (5) Seminar, five hours; discussion, two hours. Limited to juniors/seniors. Variable topics course organized around disciplinary knowledge central to development of core understanding of innovative educational work that goes through teaching and learning at UCLA Lab School through seminars, readings, observations, and discussions. Individual meetings with faculty mentor throughout term. Individual contract required. Letter grading.

196D. Instructional Apprenticeship in Teaching and Learning at UCLA Partner Schools. (2 to 4) Tutorial, four hours. Limited to juniors/seniors. Introduction to K-12 teaching profession through training and supervised off-campus experiences at UCLA partner schools (Nora Stern Elementary School, Brockton Elementary School, Emerson Middle School, University High School, UCLA Community School, or other LAUSD schools coordinated by students). Students gain grounded understanding of social issues in education through readings, observations, direct support in classrooms, and tutoring activities. Individual meet- ings with faculty mentor throughout term. Individual contract required. Letter grading.

200A. Historical Research and Writing. (4) Lecture, four hours. Methods of historical research and writing for students who are or who will be engaged in research and in report or paper or thesis writing, regardless of their field of interest. Letter grading.


200C. Analysis of Survey Data in Education. (4) Lecture, three hours; laboratory, two hours. Requisite: course 200B. Introduction to techniques of processing and analyzing non-experimental quantitative data. S/U or letter grading.

209C. History of American Education. (4) (Same as History M264.) Discussion, three hours. History of educational thought and of social forces impinging on American education. Topics include: philosophical and political foundations of education; analysis of relation between these ideas and forces, and aims and practices of American education today. S/U or letter grading.


214A. Counseling Theory and Practice. (4) Lecture, four hours. Alternatives in counseling practice in relation to theories of personality development and functioning, research on effectiveness of counseling, professional issues in counseling, educational aspects of counseling. S/U or letter grading.

214D. American Professoriate: Faculty Status, Role, and Performance. (4) Discussion, four hours. Historical and contemporary issues involving American professoriate. Topics include employment, academic culture, teaching assignments, academic standards, faculty development. Letter grading.


214F. Student Problems: Social Context. (4) Lecture, four hours. Designed to assist students in understanding configuration of social forces that lead to student dysfunctions. Consideration of number of contemporary social problems that are of concern to school counselors, educators in general, and behavior scientists. S/U or letter grading.

M215. Personality, Motivation, and Attribution. (4) (Same as Psychology M239.) Discussion, three hours. Current research and theory relating personality variables (e.g., attributional styles, self-esteem) to motivation for and performance on tasks such as academic behavior. Perceived causes of outcomes in achievement and affective domains. S/U or letter grading.


217A. Social Development and Education. (4) Seminar, four hours. Biological and familial, school, and other influences on children's development in context of current research and theoretical models; consideration of theoretical and methodological research on family, peer group, and school; application of developmental theory and research to educational practice. S/U or letter grading.

217B. Cognitive Development and Education. (4) Lecture, two hours; discussion, two hours. Designed for graduate students. Critical review of theories and research in cognitive development. Emphasis on work of Piaget and Vygotsky, and relation of this work to issues in educational practice. S/U or letter grading.


217D. Language Development and Education. (4) Lecture, four hours. Research and theory on how children develop their first language; sociolinguistic and psycholinguistic issues in preschool and primary years; bilingual and dialectical issues. S/U or letter grading.

217E. Emerging into Adulthood. (4) Seminar, four hours. Examination of theories and research related to transition to adulthood and role of race/ethnicity, gender, and immigration status in shaping development. Topics include historical and cross-cultural comparisons of emerging adulthood; ethnic, racial, and gender identity; family relationships and expectations; college opportunities and experiences; entering the workforce, alternative life courses, and military; and civic engagement. Letter grading.

M217F. Adolescent Development. (4) (Same as Psychology M242G.) Seminar, four hours. Designed for graduate students. Review of recent research on physical, cognitive, social, and psychological development during second decade of life. Topics include puberty, development changes in parent/adolescent re-
lationships, role of peers, identity development, high-risk behaviors, stress and coping, and school adjustment.
Letter grading.

M217G-M217H-M217I. Child Abuse and Neglect. (2–2–1). (Same as Community Health Sciences M225A-M225B) Lecture, two hours; discussion, two hours; laboratory, two hours. Requisites: courses 209C, 227A. Designed for graduate students. Letter grading.


216. Measurement of Educational Achievement and Aptitude. (4) Lecture, four hours. Requisite: course 230A. Critical study of tests of achievement and aptitude, with emphasis on group tests; relation of achievement to aptitude; social implications of measurement of intelligence; elements of validity and reliability. S/U or letter grading.

219. Laboratory: Advanced Topics in Research Methodology. (4) Laboratory, four hours. Provides assistance in design of research and interpretation of data to advanced students from other divisions. Corequisite: course 227A. Laboratory and lecture included in other courses on research methods. S/U or letter grading.

220A. Inquiry into Schooling: Organization and Change. (4) Lecture, four hours. Critical analysis of issues in reconstruction of schooling; concepts of function and structure of schooling; organization theory; systems approaches in analysis of organization development and change. S/U or letter grading.

221. Computer Analyses of Empirical Data in Education. (4) Lecture, two hours; laboratory, two hours. Requisites: courses 209C (section 1), 230A. Designed to develop conceptual and technical skills needed for designing and executing empirical research utilizing statistical packages. Each student conducts two original studies. Equal emphasis on techniques of data analysis and interpretation of results. S/U or letter grading.

222A. Introduction to Qualitative Methods and Design Issues in Educational Research. (4) Lecture, three hours; discussion, one hour. Introductory course for students interested in epistemology, theories, and styles of qualitative research in educational settings. Theory and practice of naturalistic, qualitative research design covered in second half of course. Letter grading.

222B. Participant-Observation Field Methods. (4) Lecture, two hours; discussion, two hours. Requisite: course 222A. Continuation of fieldwork project started in course 222B, with focus on practical skills and conceptual/methodological issues involved in reducing and analyzing qualitative data. Letter grading.

222D. Qualitative Inquiry: Special Topics. (4) Lecture, five hours. Special topics covered on some field or aspect of qualitative inquiry. Topics may include classroom ethnography, advanced ethnographic writing and/or multimedia design, discourse analysis, and community-based social research. S/U or letter grading.


224. Leading Change through Disciplined Inquiry. (4) Lecture, four hours. Introduction to disciplined inquiry and continuous improvement methods as means for driving change in complex systems. Introduction to organizational learning and change, and adult learning concepts and models. Key elements for leading change, whether for individuals, teams, or organizations, and its application in education, health care, and other disciplines. S/U or letter grading.

225A. Issues in Education of Exceptional Individuals. (4) Lecture, four hours. Designed for graduate students. Analysis of major research concerning contemporary issues, topics, and programs for exceptional individuals; consideration of commonalities and differences among exceptional individuals. S/U or letter grading.

225B. Advanced Issues in Education of Exceptional Individuals. (4) Lecture, four hours. Synthesis of developmental and educational theory relevant to study of exceptional individuals, including consideration of historical context of current research and applied issues in special education. S/U or letter grading.


227A. Research on Learning Characteristics of Exceptional Individuals. (4) Lecture, four hours. Requisite: course 222B. Overview of research theory and methodology for investigating characteristics of exceptional individuals and discussion of application of this work to educational practice. S/U or letter grading.


228. Observation Methods and Longitudinal Studies. (4) Lecture, two hours; discussion, two hours. Requisites: courses 209C, 220B. Observational and longitudinal studies. Formulation of study conclusions concerning influences on children’s development. Conduct of observations; processing and analysis of data. Use of computers for recording observations. S/U or letter grading.

229. Seminar: Special Topics in Urban Schooling. (4) Seminar, four hours. Research on selected topics in fields of administration, policy, curriculum, and teaching studies and on conceptualization of hypothesis and research programs on division topics and issues. Letter grading.

CM229B. Narratives of Justice: Disrupting School-to-Prison Pipeline. (4) (Same as African American Studies CM213.) Lecture, four hours; discussion, one hour. Exploration of policies and practices, art and activism, and other forms of organizing against the school-to-prison pipeline. Concurrently scheduled with course CM163. S/U or letter grading.


231C. Analysis of Categorical and Other Nonnormal Data. (4) Lecture, four hours. Requisites: courses 230B, 230C. Regression analysis with dichotomous and other nonnormal dependent variables, logistic models with categorical model coefficients, association of categorical variables, factor analysis, and structural equation modeling. Letter grading.

231D. Advanced Quantitative Models in Nonexperimental Research: Multilevel Analyses. (4) Lecture, four hours. Requisites: courses 230B, 230C. Examination of conceptual, substantive, and methodological issues in analyzing multilevel data (i.e., on individuals in organizational settings such as schools, corporations, hospitals, communities); consideration of alternative analytical models. Letter grading.

M231E. Statistical Analysis with Latent Variables. (4) (Same as Statistics M244.) Lecture, three hours. Requisites: courses 231D, M231B. Linear structural equation (causal modeling) by considering models with measurement errors and multiple indicators of latent variables. Confirmatory factor analysis, covariance structure modeling, and multiple-group analysis. Identification, estimation, testing, and model building considerations. Letter grading.

251F. Seminar: Cognitive and Personal Development of College Students. (4) Seminar, four hours. Examination of cognitive development of college students; issues of personal and social development, including leadership, and interpersonal relations and skills. S/U or letter grading.

262B. Seminar: Reading. (4) Seminar, four hours. S/U or letter grading.

252F. Seminar: Research Topics in Bilingual/Multicultural Education. (4) Seminar, four hours. S/U or letter grading.

263. Seminar: Higher Education. (4) Seminar, four hours. May be repeated for credit. S/U or letter grading.

254. Seminar: Teacher Education. (4) Seminar, four hours. Research, issues, and practices in preservice and in-service teacher preparation, evaluation, and certification. Social, philosophical, and methodological issues and current trends in America and abroad. Opportunities to observe, participate in, and discuss teacher education programs. S/U or letter grading.

265. Higher Education Policy. (4) Lecture, four hours. Requisites: courses 250A, 250B. Understanding public policy for higher education requires understanding underlying power and policy processes. Examination of major topics on which U.S. government is active, as well as key actors and their influence. Letter grading.

M266. Feminist Theory and Social Sciences Research (Gender Studies M266). Lecture, four hours. Examination of how diverse feminist social theories of last quarter century have both challenged and strengthened conventional social sciences theories and methodologies. Introduction especially to feminist standpoint theory, distinctive critical theory methodology now widely used in social sciences. Letter grading.


268. Theorizing Reading: Rhetorics of Academic Discourse. (4) Lecture, two hours; discussion, two hours. Designed for graduate students. Introduction to theoretical approaches to reading, such as poststructuralist, feminist, deconstruction, reader reception, and semiotics, and to core ideas of some leading theorists of reading, such as Roland Barthes, Wolfgang Iser, Barbara Johnson, Stanley Fish, and Gayatri Spivak. Letter grading.

269. Representations of Education in Cinema. (4) Lecture, two hours; discussion, two hours. Designed for graduate students. Exploration of ways in which we read diverse “texts,” particularly films set in or around schools, to illuminate contemporary issues in American secondary education (e.g., issues pertaining to representation of teachers, students, parents, and administrative staff) and to examine how media texts are being read, understood, and evaluated by individuals and groups who are not engaged inside the institution. Letter grading.

270. Introduction to Cultural Studies. (4) Lecture, four hours. Investigation of current trends in cultural studies through examination of different methods of cultural interpretation, seminal texts in cultural studies, and practical criticism engaging popular artifacts of media culture. Emphasis on developing critical media literacy and practical criticism engaging popular artifacts of media culture. Letter grading.

272. Case-Study Research in Education Policy and Practice. (4) Discussion, four hours. Use of case-study research in education research, proposing opportunities for applying methodological skills to actual case-study research projects. Focus on single and multiple case studies that investigate issues in education policy and practice. Letter grading.

273A. Structure and Dynamics of Educational System. (4) Lecture, two hours; discussion, two hours. Overview of school administration, teaching, curriculum, and policy studies. Focus on American education as institutional system wherein federal, state, and local policy, school administration, curriculum theory and design, and teaching are inextricably connected in delivery of education. Letter grading.

273B. Social Foundations of Education. (4) Seminar, four hours. Introduction to literature on multiculturalism and teaching in diverse social, cultural, and economic contexts. Examination of debates over multiculturalism and teaching for democratic citizenship by review of diverse number of anthropological, sociological, educational curricula and literatures. Letter grading.

274. Science, Technology, and Social Research after Eurocentrism. (4) Lecture, four hours. Philosophy of natural sciences for social scientists that examines challenges to research questions raised by multicultural and postcolonial science and technology studies that have emerged since World War II. Focus on sciences and technologies in third-world development processes, comparative ethnoscience movements, and new theories of knowledge and how to do maximally objective research emerging from these literatures. Letter grading.

275. Race and Education. (4) Seminar, four hours. Designed for graduate students. Examination of role of race in educational policymaking. Exploration of broad interpretation of how schools contribute to racial stratification and inequality by linking sociological and sociopolitical theories of racial attitudes, and conflict to historical policy analysis. Letter grading.

276. Contemporary Theories of Writing. (4) Lecture, four hours. Revisions of current theories of writing and literacy research and examination of relationships among writing, literacy, culture, and human development. In particular, examination of history of writing research over last three decades as part of broader intellectual history. Letter grading.


CM278. Critical Media Literacy and Politics of Gender: Theory and Production. (4) Same as Gender Studies CM278. Seminar, three hours. Corequisite: course CM278L. Use of range of pedagogical approaches to theory and practice of critical media literacy that necessarily involves understanding of new technologics and study of the production of technology and production techniques to inform student analysis of media and critical media literacy projects. Concurrently scheduled with course CM278. Letter grading.

CM278L. Critical Media Literacy and Politics of Gender: Laboratory (2) (Corequisite: course CM278). Laboratory, two hours. Corequisite: course CM278. Hands-on production experience as integral component of course CM278. Concurrently scheduled with course CM278L. Letter grading.

279. History of Urban Schooling. (4) Lecture, four hours. Designed for graduate students. Survey of major events, political and economic forces, and ideas that shaped urban schools since 1890. Examination of historical scholarship across range of political/ideological perspectives. Letter grading.

280A. Seminar: Selected Topics in Special Education. (2 to 6) Seminar, two to six hours. Focus on research in special education. Introduction to range of current topics in field. S/U or letter grading.

280B. Seminar: Exceptional Individuals. (4) Seminar, four hours. Limited to doctoral students. S/U or letter grading.

281. College Access Seminar. (4) Seminar, four hours. Discussion, two hours. Knowledge of changing dynamics of college access, individual, organizational, and field levels and understanding of links between K-12 and postsecondary stratification and how educational advantage and disadvantage accumulates throughout education and affects equity in college access. Letter grading.


283. Social Research in Multicultural and Postcolonial World. (4) Lecture, four hours. Philosophy of social sciences that focuses on how to think critically about issues. (1) Critical analysis of procedures and results of research conducted within liberal state that must be committed to value-neutrality and (2) challenges that multicultural and postcolonial social theories have raised to conventional research theories and methodologies. Letter grading.

284. Critical Theory in Education: Power, Politics, and Liberation. (4) Lecture, four hours. Designed for graduate students. Consideration of issues and methodologies within which has come to be known as “critical and educational tradition,” including some major theoretical writings in liberal, neo-Marxist, and liberal/postmodernist subfields of critical education tradition. Letter grading.

285. Education and Law. (4) Lecture, four hours. Examination of recent high-profile, education-related disputes at both K-12 and higher education levels. Exploration of topics including school prayer, student freedom of expression, technology-related issues and concerns, religion in schools, cyberbullying, and accountability for off-campus behavior. Examination of issues related to quality education by analyzing disputes arising at every stage of education process, from issues regarding practices that may engender school-to-prison pipeline to ongoing legal battles regarding race-conscious policies. Every Student Succeeds Act, K-12 teacher tenure, school sports, unmet needs of English language learners, misuse of special education system, impact of burgeoning charter school movement, and rights of undocumented students. Concurrently taught with Law 282. Letter grading.

M286. Language, Culture, and Education. (4) Same as Anthropology M286. Seminar, three hours. Examination of ongoing movement to reclaim and reimage schooling as site to sustain indigenous, black, Latinx, Asian and Pacific Islander communities, including ways these identities/ memberships intersect with gender identity and expression, sexuality, disability, language, migration, place, class, and more. For centuries of teaching and learning, communities have seen school as push against imposed schooling; schools have devalued communities, their lifeways, and their lives. Most recently, this movement is indebted to several decades of research, theory, and practice in asset-based pedagogies. Work on culturally sustaining pedagogy (CSP) has joined these decades (and centuries) of work to offer vision of school that seeks to perpetuate and foster—to sustain—inclusive, literate, and cultural pluralism as part of schooling for positive social transformation and revitalization. S/U or letter grading.

287. Research on Language Issues in Education. (4) Seminar, four hours. Roles of language(s) in formal and informal education, including studies of opportunities and challenges offered by language variation found in schools. Examination of language acquisition theories along with those of language ideologies, language policies, and multilingualism. Letter grading.

288. Research Apprenticeship Course. (2) Discussion, two hours. Course facilitates mentorship model of training PhD students in education, with focus on development of graduate student research topics. Assignments follow research activities; topics; students have opportunity to offer and receive feedback. May be repeated for credit. S/U grading.

290. Educational Policy Analysis: Research, Theories and Practice. (4) Seminar, four hours. Broad overview of development of educational policy from 1950s to present. Examination of current issues and debates within educational policy in U.S. through different theoretical lenses. Exploration of major bodies of research on educational policy and alternative paradigms. Letter grading.
C292A. Practicum in Intergroup Dialogue Facilitation. (4) Seminar three hours. Requisite course C244. Application and further development of content and skills learned in course C244. In addition to co-facilitating weekly dialogues, students are expected to participate in weekly practice seminars. Readings, discussions of group dynamics, and one-on-one meetings with assigned coach. Fosters supportive learning environment where each student facilitator can develop and hone skills into arts of dialogue facilitation and continue process of self-reflection and critical inquiry of own identities, biases, beliefs, and perspectives. Includes learning as large group facilitator and small group individualization as co-facilitation dyad from instructor. Concurrently scheduled with course C192A. Letter grading.

M294A-M294B. High School Reform: Persisting Failure, Urgent Challenges. (1 to 8 each) (Same as Law M243A-M243B.) Seminar, four hours. Course M294A is requisite to M294B. Research seminars with focus on what is probably most serious and neglected area in American education. In past half century real progress has been made in preschool, gains in achievement in early grades have been produced, and very well-regarded system of higher education has been established—but high school has failed. Exploration of institutional and policy roots of these problems and assessment of available research on key dimensions to help students launch original research in one or more areas. Presentations by experts actively involved in high school reform efforts included. In Progress (M294A) and S/U or letter (M294B) grading.

295. Freire, (4) Seminar, four hours. Requisite: course C125 or C207 or prior knowledge of Freire's work. Analysis of intellectual production of Paulo Freire linked to social context in which it took place. Study of his life and work in five phases: Brazilian Experience (1921 to 1984); Chilean Experience, where he published Education as Practice of Freedom and Pedagogy of Oppressed, as well as other lesser-known works, while also devoting most of this period to empirical research. Regular readings include psychoactive drugs (alcohol, tobacco, and narcotics), human sexuality, nutrition, community health resources, and analysis of state's health framework. S/U grading.

300. Dissertation Writing Workshop: Interdivisional Seminar. (4) Seminar, one hour; discussion, two hours; laboratory, one hour. Limited enrollment. Introduction to doctoral candidates to dissertation writing as genre that can be analyzed or broken down with its constituent parts and, vice versa, which is constructed out of materials that can be identified and analyzed. S/U grading.

301. Introduction to Information and Presentation Tools. (2) Laboratory, two hours. Limited to credential candidates. Introduction to learning and communication technology infrastructure and classroom presentation tools. Introduction to resources and services, e-mail functions, accessing the Internet, and presentation software and multimedia elements. S/U grading.

305. Health Education for Teachers. (2) Lecture, two hours. Limited to Teacher Education Program students. Sequence of laboratory sessions providing preservice teachers with introduction to education technology infrastructure and classroom presentation tools. Introduction to resources and services, e-mail functions, accessing the Internet, and presentation software and multimedia elements. S/U grading.

311. Principles and Methods of Computer Literacy Education. (3) Lecture, two hours. Focus on application of computers in educational environment. Discussion of issues on why and how to integrate computers into curriculum and hands-on practice that allows students to demonstrate skills discussed. S/U grading.

313. Principles and Methods of Computer Literacy and Classroom Application—K-12. (2) Lecture, one hour; laboratory, 30 minutes. Introduction to use of computers in educational environment. Discussion of issues on why and how to integrate computers into curriculum and hands-on practice that allows students to demonstrate skills discussed. S/U grading.


320A-320B-320C. Secondary Content and Literacy Methods. (4–3–3) Lecture, three hours. Examination and development of instructional programs and analyses and practices of instructional methods for teaching content in grades 7 through 12. Emphasis on interdisciplinary approach that integrates content areas and infuses literacy, technology, and strategies for second language learners. Aligned with California state frameworks and California content standards for grades K-12, including English Language Development Standards—all of which address needs and interests of diverse students. Letter grading.

321. Mathematics Methods. (3) Lecture, three hours. Methods and strategies of instruction for teaching content in grades 7 through 12. Emphasis on interdisciplinary approach that integrates content areas and infuses literacy, technology, and strategies for second language learners. Aligned with California state frameworks and California content standards for grades K-12, including English Language Development Standards—all of which address needs and interests of diverse students. Letter grading.


315B. Elementary Literacy Methods. (3) Seminar, two hours. Theoretical principles and pedagogical strategies necessary for developing and maintaining balanced comprehensive literacy program for elementary students. Examination of how children learn to read and write, and use language. Letter grading.

316A-316B. Principles and Methods for Teaching Reading for Single Subject Instruction. (2–2) Lecture, two hours. Course 316A is requisite to 316B. Reading instruction in single subject context to analysis of reading problems and programs; study of relationships between language/culture/cognition and reading. Examination and development of instructional programs; analysis and practice of alternative instructional methods. Observation and participation in schools. S/U grading.

318A. Integrated Methods for Elementary Teachers. (3) Lecture, four hours. Examination and development of instructional programs and analyses and practices of instructional methods for teaching K-6 content, with emphasis on interdisciplinary approach that integrates content areas. Aligned with California state frameworks and California content standards for grades K-12, including English Language Development Standards—all of which address needs and interests of diverse students. Letter grading.

318B. Integrated Methods for Elementary Teachers. (4) Lecture, four hours. Examination and development of instructional programs and analyses and practices of instructional methods for teaching K-6 content, with emphasis on interdisciplinary approach that integrates content areas and infuses literacy, technology, and strategies for second language learners. Aligned with California state frameworks and California content standards for grades K-12, including English Language Development Standards—all of which address needs and interests of diverse students. Letter grading.


320A-320B-320C. Secondary Content and Literacy Methods. (4–3–3) Lecture, three hours. Examination and development of instructional programs and analyses and practices of instructional methods for teaching content in grades 7 through 12. Emphasis on interdisciplinarity of integrate content areas and infuses literacy, technology, and strategies for second language learners. Methods courses are aligned with California state frameworks and California content standards for grades K-12, including English Language Development Standards—all of which address needs and interests of diverse students. Letter grading.

321A. Secondary Content and Literacy Methods in Ethnic Studies. (3) ( Formerly numbered 321.) Lecture, three hours. Examination and development of instructional programs and analyses and practices of instructional methods for teaching ethnic studies in grades 7 through 12, with emphasis on interdisciplinary approach that integrates content areas and infuses literacy, technology, and strategies for second language learners. Methods courses align with California state frameworks and California content standards for grades 7 through 12, including English Language Development Standards—all of which address needs and various interests of diverse students. Ethnic studies curriculum focuses on Chicano studies, African American/black studies, indigenous studies,
Asian American studies, and gender/sexuality studies and how to develop curriculum focused on local histories in urban classrooms. S/U grading.

321B. Ethnic Studies Curriculum Development. (3) Lecture, three hours. Examination and development of theoretical frameworks around curriculum development for grades 7 through 12, with emphasis on interdisciplinary approach that integrates content areas and infuses literacy, technology, and strategies for second language learners. Methods courses align with California state frameworks and California content standards for grades K through 12, including English Language Development Standards for English language learners. Examinations based on analysis of needs and views of interests of diverse students. Ethnic studies curriculum focuses on Chicano studies, African American/black studies, indigenous studies, Asian American studies, gender studies. Students are required to develop curriculum focused on local histories in Los Angeles urban classrooms. S/U grading.


330A. Observation and Participation. (2 to 6) Site-based fieldwork, 10 to 15 hours. Students are assigned to school sites with racially, culturally, and linguistically diverse student populations. Throughout observation and participation period, students analyze effective strategies for achieving learning for all students, the role of curriculum and appropriate use of educational technology. S/U grading.

330B. Student Teaching. (4 to 8) Site-based fieldwork, 10 to 20 hours. Requisite: course 330A. Students are assigned to student teach in designated school sites with racially, culturally, and linguistically diverse student populations. Throughout student teaching period, students as novice teachers plan, implement, and assess daily lessons and units, as well as actively engage in reflecting on issues specific to school/community relations. S/U grading.

330C. Student Teaching. (4 to 8) Site-based fieldwork, 10 to 30 hours. Requisite: course 330A. Students are assigned to student teach in designated school sites with racially, culturally, and linguistically diverse student populations. Throughout student teaching period, students as novice teachers plan, implement, and assess daily lessons and units, as well as actively engage in reflecting on issues specific to school/community relations. Increased daily responsibilities. S/U grading.

330D. Classroom Residency and Teaching. (4) Site-based fieldwork, 10 to 15 hours. Students are employed by local school districts to teach as residents in designated school sites with racially, culturally, and linguistically diverse student populations. Students also work in collaborative teams through Teacher Education Program to initiate change project in their local school and/or complete case study on project. S/U grading.

360A-360B/360C. Novice Seminars. (2–2) Seminar, two hours. Analysis of basic principles and concepts of planning, conducting, and evaluating units of curriculum and instruction. Emphasis on study and utilization of constructivist strategies and their application in secondary schools. Examination of different methods of computer literacy and teaching subject matter. Students may conduct ethnographic inquiry of local community of their designated partnership district. May be repeated for credit. S/U grading.

375. Teaching Apprentice Practicum. (1 to 4) Seminar, to be arranged. Preparation: apprentice personnel employment as teaching assistant, associate, or fellow. Teaching apprenticeship under active guidance and supervision of regular faculty member responsible for curriculum and instruction at UCLA. May be repeated for credit. S/U grading.

390A-390B-390C. Colloquium Series: Human Development and Psychology. (1–1–1) Seminar, one hour. Required of first-, second-, and third-year Human Development and Psychologist and IDP PhD students. Training to conduct research that has practical implications as well as theoretical significance within field of applied human development. Children's cognitive, language, personality, and social development in educationally relevant settings such as schools and daycare programs. Series unites scholars exploring contemporary applied human development and provides framework to facilitate research and training in human development within school and UCLA community, as well as forum to share information with other investigators and institutions. May be repeated for credit. S/U grading.


401. Structure and Functions of Schools as Complex Organizations. (4) Lecture, four hours. Critical analysis of alternative assumptions about organizations, how they function, and why people in organizations—be they formal or informal—behave as they do. Application to special circumstances of schools and to contemporary issues and problems in school leadership, improvement, and reform. S/U or letter grading.


403. Infant-Toddler Child Development and Care. (4) Lecture, four hours. Exploration of infant and toddler development (ages 0 to 3) and implications of development on their care and education. Introduction to major theories in child development, developmental milestones, learning, and early childhood development. Emphasis on family engagement, inclusion, risk contexts, developmentally appropriate practices, and assessment. S/U or letter grading.


405A. Exploring Communities. (2) Seminar, two hours. Limited to credential program students. Learning about urban communities by critically examining students' own beliefs, assumptions, and experiences about them to deepen understanding and appreciation about urban communities. Letter grading.

405B. Exploring Identities. (2) Seminar, two hours. Limited to credential program students. Examination and reflection on student values, beliefs, assumptions, and lives to determine how these factors shape way students view their world and, in particular, teaching, learning, students, their families, and their neighborhoods and communities. Letter grading.

405C. Exploring Family-School Connections. (2) Seminar, two hours. Limited to credential program students. Exploration of interrelationships among families, communities, engagement parents, caregivers, guardians, students, and school personnel to develop strategies for working with families and to develop philosophy of education. Letter grading.

406. Social Foundations and Cultural Diversity in American Education. (3) Lecture, three hours. Intensive consideration of American society, particularly its racial and cultural diversity. Topics include historical development of American society, manifestations of culture, and ways to learn about students' cultures. Examination of issues of racism, ethnic and gender differences, perspectives of cultural diversity, and impact on educational and classroom instruction. Letter grading.

406B. Social Foundations and Cultural Diversity in American Education: Fieldwork and Observation. (3) Lecture, three hours. Historical, social, political, and economic contexts of schooling in U.S., with special emphasis on perspectives and contributions from ethnic studies. Examination of central arguments centered around systemic processes, deficit-framing, meanings produced in cultural contexts, and agency and activism. Letter grading.

407. Psychological Foundations of Education. (3) Lecture, three hours. Examination of both historical and contemporary issues that impact cultural diversity in urban classroom through class discussion and experiential reflection, allowing novice teachers to understand and participate in rich cultural diversity of urban Los Angeles. By exploring culture as tool and for evaluation problems. Writing evaluation proposals, structuring and reform, standards, access and accountability, and new technologies. Emphasis on both content and process. Letter grading.

408B-408U. Language and Culture. (2 each) Lecture, two hours. Exploration of complex nature of culture and impact of cultural diversity in urban classroom through class discussion and experiential reflection, allowing novice teachers to understand and participate in rich cultural diversity of urban Los Angeles. By exploring culture as tool and target for increasing understanding of multicultural diversity, teachers may construct meaningful connections to students, communities, and home cultures. Each course may be taken independently for credit. Letter grading.

410A-410B. Issues in Higher Education and K-12. (4) Lecture, four hours. Two-course sequence providing overview of higher education systems and frameworks. Letter grading. 410A. Designed to develop knowledge, understanding, and sensitivity to contemporary critical and emerging issues that impact higher education, with focus on both theory and practice. Study of relationships between issues in K-12 schooling and higher education. 410B. Exploration of issues that effect both higher education and K-12 including re-structuring and reform, standards, access and accountability, and new technologies. Emphasis on both content and process. Letter grading.

411. Critical Issues in Evaluation. (4) Lecture, four hours. Assessment methodologies appropriate for evaluation problems. Writing evaluation proposals, developing program monitoring procedures, selecting appropriate evaluation design strategies, coping with ethical considerations in evaluation, framing decision context, and reporting evaluation results. Letter grading.

412. Why Research Matters to Student Affairs Professionals. (4) Lecture, four hours. Critical issues and ethical dilemmas students face, and how research can inform practice. Letter grading.
413C. Culture of Emphasis. (2 to 4) Lecture, three hours. Offered and required for Bilingual Authorization Programs. Conducted in language of authorization. Discussion of commonalities of culture of emphasis in its home country or countries; major historical periods and events; values, belief systems, and expectations; migration and immigration; historical and contemporary demographic letter grading.

414A. Student Affairs Practice and Theory. (3) Lecture, two hours; discussion, two hours. Examination of needs for student affairs services, range of services, their philosophical and empirical rationale, and their organization and evaluation to provide knowledge base for developing theories of practice. Ongoing involvement in cooperative learning project to examine these issues both as team members and as individuals. Offered in summer only. Letter grading.

414B. Legal and Ethical Issues in Student Affairs. (4) Lecture, two hours; discussion, two hours. Examination of legal and ethical issues that affect student affairs practice. Letter grading.

414C. College Student Counseling. (3) Lecture, three hours. Overview of counseling at college counseling centers. Review of historical context, philosophical and practical bases, organization and administration, specific programs, and contemporary issues and trends in college student counseling. Letter grading.

414D. Career Development and Interventions in Education. (4) Lecture, four hours; discussion, one hour; laboratory, one hour. Examination of challenges faced by college students of all ages in preparing for careers in dynamic multicultural world economy and intervention for educational, administrative, and psychological factors. Emphasis on understanding development and evaluation of interventions. Letter grading.

414E. Administration of Student Affairs. (3) Lecture, two hours; discussion, two hours. Overview of general knowledge and processes essential to effectively administer programs or services under student affairs. Examination of relationship between environmental factors and strategies for governing, planning, and managing student affairs programs and services. Offered in summer only. Letter grading.


415B. Advanced Assessment in Counseling Psychology. (4) Lecture, four hours. Requisite: course 415A. Advanced course in assessment for counseling psychologists. Survey and demonstration of instruments of achievement, affective, and personality appraisal, with emphasis on testing and interplay between assessment and psychologic functioning for reducing risks of failure in academic, personal, and social areas. S/U or letter grading.

416. Program Development and Planning in Student Affairs. (4) Lecture, two hours; discussion, two hours. Planning of programs that provide or support learning for individuals and groups in student affairs context. Examination of philosophical foundations of program development; theoretical and logical dimensions of program development. Letter grading.

417. Program Evaluation and Assessment in Student Affairs. (4) Lecture, two hours; discussion, two hours. Examination of usefulness and appropriateness of various program evaluation methodologies and theories of assessment. Letter grading.

418. Group Dynamics in Student Affairs. (3) Lecture, two hours; discussion, two hours. Group productivity, leadership in groups, social perception, attitude formation, and behavior of individuals and groups. Evaluation of social, psychological, and educational principles related to experiences of individuals in small groups. Letter grading.

419. Introduction to Research in Student Affairs. (4) Lecture, two hours; discussion, two hours. S/U or letter grading. Designed to orient students to nature of educational research in context of student affairs. Overview of quantitative, qualitative, and mixed methods to position students as scholar-practitioners. Exposure to these methods supplemented by examination of how they are used in published research relevant to practice of student affairs. Letter grading.


421A. Programs and Research in Early Childhood Education. (4) Lecture, four hours. Preparation: one course from development series. Examination of child care programs and research in early childhood education. Overview of research in developmental psychology and education to goals of early childhood education and day care. S/U or letter grading.


422. Inquiry into Schooling: Basic Issues. (4) Lecture, four hours. Critical examination of basic issues and problems in organization and reconstruction of precollege schooling. Consideration of historical development and changing functions of schooling in American society; school organization; schooling alternatives; role of management of educational change. S/U or letter grading.


424A. Social Studies in Curriculum. (4) Lecture, four hours. Advanced study in social studies curriculum development: problems in defining objectives and organizing single and multidisciplinary programs; critical review of literature on cognitive and affective learning in social education; planning and experimental study of instructional programs. S/U or letter grading.

424B. Reading in Curriculum. (4) Lecture, four hours. Requisite: course 230A. Study of reading curricula and instructional procedures, with emphasis on rationale and research underlying their development and research comparing their effectiveness. S/U or letter grading.

424G. Curriculum Design for Bilingual Education. (4) Lecture, four hours. Advanced study of curriculum design for bilingual educational programs. Philosophical and practical implications of task analysis and instruction applied to bilingual learner; language assessment: development of instructional component; program evaluation: S/U or letter grading.


426A–426B. Program Development and Program Evaluation in Student Affairs. (2–2) Lecture, two hours. Introduction to program development and planning, as well as to assessment and program review. Development of knowledge of and skill in planning educational and training programs that provide for learning within context of student affairs, as well as knowledge of and skill in developing, implementing, and analyzing assessment projects within student affairs context. Study of basic theoretical perspectives underlying program design and program review/assessment and application by developing, implementing, and assessing effectiveness of one program. In Progress (426A) and letter (426B) grades.

431A. Administration in Higher Education. (4) Lecture, four hours. Overview of college and university administration and introduction to policy research and implementation. Case studies of administrative problems, policies, and practices. Management information systems, resource allocation, and issues related to responsibility, authority, and participation in administrative decisions. S/U or letter grading.


432A. Seminar: Professional Topics in Higher Education. (4) Seminar, four hours. S/U or letter grading.


433B. Development of Educational Media. (4) Discussion, four hours. Current issues and trends in design of interactive educational media. Design and development of prototype educational media applications, integration plans for established or experimental educational media into formal learning settings, or evaluations of specific learning environments. Letter grading.

440C. Administration of Instructional Programs. (4) Lecture, four hours. Examination of current educational problems in society and strategies of their solution through curriculum planning, practice, instructional design and operation; in-service training of teaching staffs. S/U or letter grading.

441A. Instructional Supervision A. (4) Lecture, four hours. Analysis of teaching in light of research-substantiated elements of instruction: task analysis, appropriate objectives, principles that increase motivation, rate and degree of learning, retention and transfer, monitoring and adjusting instruction to meet needs and capacities of learners. S/U or letter grading.

442B. Legal Aspects of Educational Management and Practice. (4) Lecture, four hours. Examination of structures and kinds of law governing educational systems in U.S.; constitutional dimensions of church/state relations; employees’ civil rights and legal aspects of hiring, firing, and negotiating procedures; student attendance, control, and civil rights. S/U or letter grading.

443. Policy Analysis in Education. (4) Lecture, four hours. Overview of political, economic, and legal context of educational policy formation. Included in examination are issues that impact on minorities (e.g., bilingual education, desegregation, affirmative action, role of subordinates in policy-making process). S/U or letter grading.

444B. Equality of Educational Opportunity through Desegregation and Finance Case Law. (4) Lecture, four hours. Requisite: course 442B. Concentrated review of definition of equality of educational opportunity as it is being developed by courts in cases concerning desegregation and educational finance. S/U or letter grading.

447. Seminar: Educational Policy and Planning, Special Topics (1-10). (4) Seminar, one to four hours. S/U or letter grading.

448A. Urban School Leadership. (4) Lecture, four hours. Analysis of problems of urban school leadership. Emphasis on changing nature of urban principalship, with attention to role of the principal in school and community agencies that interact with urban school leaders. S/U or letter grading.

448B. Urban Leadership Laboratory. (4) Laboratory, four hours. Hands-on opportunity to practice human and technical skills requisite for success as urban school leader. Topics include negotiations, conflict resolution, applied computer technology, and effective communication. Activities include gaming, simulation, computer programming, and group dynamics. S/U or letter grading.

450. Leadership Capacity Building. (4) Lecture, one hour; discussion, three hours. Limited to Educational Leadership Program students. Course taken in year three of Educational Leadership Program to help students with their communication and leadership capacities. S/U grading.

451. Foundations of Organizations and Leadership. (4) Lecture, four hours. Limited to Educational Leadership Program students. Promotion of understanding of traditional and contemporary conceptions of leadership and organizational theory, with application of these conceptions to student professional work settings. Letter grading.

452A-452B. Educational Enterprise. (4-4) Lecture, two hours; discussion, two hours. Limited to Educational Leadership Program students. Use of structural, human resource, political, and symbolic frames to study K-16 education. Letter grading. 452A. Focus on purposes of education governance, finance, access, and equity. 452B. Requisite: course 452A. Focus on educational environments, organizations, and curriculum and instruction.

453. Technology in Education: Learning and Leading with Technology. (2) Lecture, two hours; discussion, two hours. Limited to Educational Leadership Program students. Use of structural, human resource, political, and symbolic frames to study K-16 education. Letter grading. 452A. Focus on purposes of education governance, finance, access, and equity. 452B. Requisite: course 452A. Focus on educational environments, organizations, and curriculum and instruction.

454A. Action Research: Collaboration in Change. (4) Lecture, one hour; discussion, two hours; small group work, one hour. Limited to Educational Leadership Program students. Students carry out full cycle of action research at educational site. Projects done in teams for students to hone and assess their collaboration abilities. Exploration of qualitative and quantitative data gathering methods and analyses. Letter grading.

454B. Action Research: Collaboration in Change. (4) Lecture, one hour; discussion, two hours; small group work, one hour. Limited to Educational Leadership Program students. Second course in two-course sequence on learning how to do and use action research processes and tools while collaborating on data collection and analysis at educational site. Letter grading.

455. Writing and Inquiry. (4) Lecture/workshop, eight hours per month; discussion, one hour; laboratory, one hour. Limited to doctoral students in Educational Leadership Program. Intended to assist students’ professional development as writers, addressing style and organization of scholarly writing, dis- course, and broader issues of conceptualization and method. Letter grading.

456. Altering Structure and Culture of Schooling. (4) Lecture, four hours; discussion, four hours. Limited to Educational Leadership Program students. Using applied orientation, examination of variety of approches to organizational change and ways to sus- tain change. Letter grading.

457. Student Development across K-16 Spectrum. (4) Discussion, four hours. Limited to Educational Leadership Program students. Theories of student de- velopment applicable to K-12 and postsecondary ed- ucation. Focus on educational influences on self and others. Letter grading.


460. Seminar: Special Issues in Evaluation. (2 or 4) Seminar, one or two hours; discussion, one or two hours. Limited to Educational Leadership Program students. Recent emphasis included evaluation utilization and cost-effec- tiveness evaluation. S/U or letter grading.

462. Community College. (4) Seminar, four hours. Lecture, four hours. Emphasis on student development in community college formation, instruction, student flow, ad- ministration, and/or evaluation. S/U or letter grading.

466. Critical Media Literacy: Teaching Youth to Critically Read and Create Media. (4) Lecture, four hours. Exploration of how to teach K-12 stu- dents to explore their relationships with media by criti- cally questioning media representations and creating their own alternative media messages. Critical media literacy topics, theoretical foundations of cultural studies and critical pedagogy with practical classroom applications of new digital media as well as traditional print-based means of communication. Exploration of media representations of race, class, gender, sexual orientation, and other identity markers. Educators critically question media and technology, as well as explore new alternatives for creating multimedia mes- sages in their teaching and their analysis and presenta- tion of media projects related to teaching required. Letter grading.

470A. Seminar: Large Systems and Individual Schools. (4) Seminar, four hours. S/U or letter grading.


471. Principles of Effective Coaching and Teaching. (4) Seminar, four hours. Introduction to principles and practice of effective coaching and teaching for as- piring coaches considering careers in professional and collegiate athletics, K-12 schools, and community- based sports organizations. Premised on principles of social psychology and theories of social science, in- clusion, and diversity for contributing to creation of more humane, equitable, and harmonious society and nation. Letter grading.

472. Introduction to Philosophies of Coaching. (4) Seminar, four hours. Introduction to philosophies of coaching—overarching frameworks, perspectives, deep beliefs, and values that drive coaches’ specific practices—as they are manifested in writings and con- duct of professional and college sport coaches. Ex- ploration of these through study of successful coaches in variety of sports unpacking their funda- mental keys of success. Reflection on and cultivation of educational leaders’ personal philosophy of coaching answering questions what is your why and what is your how. Exploration of questions such as what is coach, what is coach’s overall purpose, what are desired research coach and institutional lead and pro- duce these results. Methods and assignments include presentations, analyzing videos, group work, inter- views, analysis of coaching philosophies, and con- structing statement of one’s own philosophy of coaching. Letter grading.

481. Knowledge and Inquiry in Classroom. (4) Lecture, four hours. Logical features of instruction and their application to learning principles in teaching and learning. Focus on critical thinking, beliefs, and fact and opinion, and their application to classroom learning situations. S/U or letter grading.

482A. Instructional Strategies in Urban Education: Technology. (4) Lecture, four hours. Emphasis on in- structional practices that integrate use of technology in urban public schools. Study and analysis of compre- hensive specialized use of appropriate computer- based technology in planning, delivering content, and debriefing of field experiences integrating technology-related tools. Letter grading.

482B. Instructional Strategies in Urban Education: English Language Learners. (4) Lecture, four hours. Emphasis on instructional practices that support English language learners in urban public schools. Study and analysis of delivery of comprehensive specialized instruction for English learners and debriefing of field experiences implementing adopted instructional pro- grams for development of academic language, compre- hension, and knowledge in core academic curricu- lum. Letter grading.

482C. Instructional Strategies in Urban Education: Social Studies. (4) Lecture, four hours. Emphasis on instructional practices that support special populations in urban public schools. Continuation of study of statutory provisions, curriculum, instruction, and assessment issues, and understanding students with disabilities, students who are at risk, and stu- dents who are gifted and talented. Research opportu- nities and additional methods in content areas for ad- vanced study, and preparation of MEd inquiry in- cluded. Letter grading.

482D. Instructional Strategies in Urban Education: Visual and Performing Arts. (4) Lecture, two hours; discussion, two hours. Emphasis on instructional practices that integrate visual and performing arts into urban classrooms. Debriefing of field experiences im- plementing subject-centered arts instruction, instruc- tion connecting arts disciplines, and instruction con- necting arts and other core disciplines. Advanced ex- ploration of elements of each art form, as well as content and emotional scaffolding strategies and re- flection strategies to make learning accessible, en- gaging, and relevant. Letter grading.

485. Advanced Study of Health Education. (1) Lecture, four hours. Students meet with instructors, field specialists, and team cohorts to study and ana- lyze delivery of comprehensive health program, physical, cognitive, emotional, and social well-being of students in K-12 classrooms. Topics include prevention and in- tervention strategies, accessing local and community resources, curriculum and instruction, and major state and federal laws related to student health and safety. Letter grading.

489. Instructional Strategies in Education. (4) Lecture, four hours. Methods for teaching, including research and active participation in adversary approach, forms of debate, role playing, interaction process analysis, and feedback instruments. Practical emphasis on social science and humanities instruc- tion, K-12. S/U or letter grading.

490A. Instructional Decision Making. (4) Lecture, four hours. Analysis of instructional models relevant to public school education. Assumptions, procedures, and constraints of each strategy considered in terms of learner and task variables. Laboratory experiences in classroom settings permit students systematically to apply and evaluate alternative instructional strate- gies. S/U or letter grading.


492. Evaluation of Teaching and Learning. (4) Lecture, four hours. Relationship between appraisal instru- ments and information required for making deci-
EXPERIENCES, and to learn from experienced TAs. Students have the opportunity to apply (in their own sections) what they learn, to reflect collaboratively on their ongoing TA experiences, and to learn from experienced TAs. S/U grading.

498A–498B–498C. Directed Field Experience. (2 to 8 each) Clinical, to be arranged. Field experiences designed to increase understanding of student fields of study. May be repeated for credit. S/U or letter grading.

499A–499B–499C. Advanced Directed Field Experience. (4 to 8 each) Clinical, to be arranged. May be repeated for credit. S/U or letter grading.

501. Cooperative Program in Special Education. (2 to 8) Tutorial, to be arranged. Preparation: consent of UCLA academic advisor and graduate dean, and host campus instructor, department chair, and graduate dean. Limited to UCLA doctoral students in special education. Used to record enrollment in practicum courses taken under cooperative arrangements with USC. S/U grading.

596. Directed Independent Study. (1 to 12) Tutorial, to be arranged (one hour per unit). Individual study or research for graduate students. May be repeated for credit. S/U or letter grading.

597. Preparation for Master's Comprehensive Examinations or Doctoral Qualifying Examinations. (1 to 12) Tutorial, to be arranged. Individual study for master's comprehensive examinations or for PhD or EdD qualifying examinations. May be repeated for credit. S/U grading.


ELECTRICAL AND COMPUTER ENGINEERING

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Eli Yablonovitch, PhD

**Adjunct Associate Professor**

Chi On Chui, PhD

**Adjunct Assistant Professors**

Shervin Moloubi, PhD
Zachary D. Taylor, PhD

**Scope and Objectives**

Electrical and computer engineers are responsible for inventions that have revolutionized our society, such as the electrical grid, telecommunications, and automated computing and control. The profession continues to make vital contributions in many domains, such as the infusion of information technology into all aspects of daily life. To further these ends, the Department of Electrical and Computer Engineering fosters a dynamic academic environment that is committed to a tradition of excellence in teaching, research, and service. It has state-of-the-art research programs and facilities in a variety of fields. Departmental faculty members are engaged in research efforts across several disciplines in order to serve the needs of industry, government, society, and the scientific community. Interactions with other disciplines are strong. Faculty members regularly conduct collaborative research projects with colleagues in the Geffen School of Medicine; Graduate School of Education and Information Studies; School of Theater, Film, and Television; and College of Letters and Science.

There are three primary research areas in the department: circuits and embedded systems, physical and wave electronics, and signals and systems. These areas cover a broad spectrum of specializations in, for example, communications and telecommunications, control systems, electromagnetics, embedded computing systems, engineering optimization, integrated circuits and systems, micro- and nanoelectromechanical systems (MEMS), nanotechnology, photonics and optoelectronics, plasma electronics, signal processing, and solid-state electronics.

The program grants two undergraduate degrees (Bachelor of Science in Electrical Engineering and Bachelor of Science in Computer Engineering) and two graduate degrees (Master of Science and Doctor of Philosophy in Electrical and Computer Engi-
The Electrical Engineering major has the following learning outcomes:

- Application of knowledge of mathematics, science, and engineering
- Design of a system, component, or process to meet desired needs within realistic constraints
- Function as a productive member of a multidisciplinary team
- Effective communication
- Identification, formulation, and solution of electrical engineering problems

**Preparation for the Major**

Required: Chemistry and Biochemistry 20A; Computer Science 31, 32; Electrical and Computer Engineering 2, 3, 10, 11L, M16 (or Computer Science M51A); Mathematics 31A, 31B, 32A, 32B, 33A, 33B; Physics 1A, 1B, 1C, 4AL, 4BL.

**The Major**

Required: Electrical and Computer Engineering 101A, 102, 110L, 113, 131A; six core courses selected from Computer Science 33, Electrical and Computer Engineering 101B, 115A, 121B, 132A, 133A, 141, 170A; three technical breadth courses (12 units) selected from an approved list available in the Office of Academic and Student Affairs; 12 units of major field elective courses, at least 8 of which must be upper-division electrical and computer engineering courses—the remaining 4 units may be from upper-division electrical and computer engineering courses from another engineering school department; and one two-semester electrical and computer engineering capstone design course (8 units).

Electrical and Computer Engineering 100 and CM182 may not satisfy elective credit.

For information on UC, school, and general education requirements, see the College and Schools chapter.

**Computer Engineering BS**

**Capstone Major**
The undergraduate curriculum provides all Computer Engineering majors with preparation in the mathematical and scientific disciplines that lead to a set of courses that span the fundamentals of the three major departmental areas of signals and systems, circuits and embedded systems, and physical wave electronics. These collectively provide an understanding of inventions of importance to society, such as integrated circuits, embedded systems, photonic devices, automatic computation and control, and telecommunication devices and systems.

Students are encouraged to make use of their electrical engineering electives and a two-semester capstone design course to pursue deeper knowledge within one of these areas according to their interests, whether for graduate study or preparation for employment. See the department website for examples of specializations.

**Learning Outcomes**

The Computer Engineering major has the following learning outcomes:

- Application of knowledge of mathematics, science, and engineering
- Design of a system, component, or process to meet desired needs within realistic constraints
- Function as a productive member of a multidisciplinary team
- Effective communication
- Identification, formulation, and solution of computer engineering problems

**Preparation for the Major**

Required: Computer Science 1 (or Electrical and Computer Engineering 1), 31, 32, 33, 35L, M51A (or Computer and Engineering M16); Electrical and Computer Engineering 3; Engineering 96C; Mathematics 31A, 31B, 32A, 32B, 33A, 33B, 61; Physics 1A, 1B, 1C, and 4AL or 4BL.

**The Major**

Required: Computer Science 111, 118 (or Electrical and Computer Engineering 132B), M151B (or Electrical and Computer Engineering M116C), M152A (or Electrical and Computer Engineering M116L), 180; Electrical and Computer Engineering 100, 102, 113, 115C; one course from Civil and Environmental Engineering 110, Electrical and Computer Engineering 131A, Mathematics 170A, 170E, Statistics 100A; 8 units of computer science and 8 units of electrical and computer engineering upper-division electives; three technical breadth courses (12 units) selected from an approved list available in the Office of Academic and Student Affairs; 8 units capstone design from either Electrical and Computer Engineering 180DA/180DB or 183DA/183DB.

For information on UC, school, and general education requirements, see the College and Schools chapter.

**Graduate Study**

Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Division website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

**Graduate Degrees**

The Department of Electrical and Computer Engineering offers Master of Science (MS) and Doctor of Philosophy (PhD) degrees in Electrical and Computer Engineering.

**Electrical and Computer Engineering**

**Lower-Division Courses**

1. **Undergraduate Seminar.** (1) Formerly numbered Electrical Engineering 1.) Seminar, one hour; outside study, two hours. Introduction by faculty members and industry lecturers to electrical engineering disciplines through current and emerging applications of autonomous systems and vehicles, biomedical devices, aerospace electronic systems, consumer products, data science, and entertainment products (amusement rides, etc.), as well as energy generation, storage, and transmission. P/NP grading.

2. **Physics for Electrical Engineers.** (4) Formerly numbered Electrical Engineering 2.) Lecture, four hours; discussion, two hours; outside study, six hours. Requisite: Physics 1C. Introduction to concepts of modern physics necessary to understand solid-state devices, including elementary quantum theory, Fermi energies, and concepts of electrons in solids. Discussion of electrical properties of semiconductors leading to operation of junction devices. Letter grading.
Upper-Division Courses

100. Electrical and Electronic Circuits. (4) Formerly numbered Electrical Engineering 100.) Lecture, three hours; discussion, one hour; outside study, eight hours. Requisites: Mathematics 33A, 33B or Mechanical and Aerospace Engineering 82, Physics 1C. Not open for credit to students with credit for course 110. Electrical quantities, linear circuit elements, circuit principles, signal waveforms, transient and steady state circuit behavior, semiconductor devices and transistors, small signal models, and operational amplifiers. Letter grading.

101A. Engineering Electromagnetics. (4) Formerly numbered Electrical Engineering 101A.) Lecture, four hours; discussion, one hour; outside study, seven hours. Requisites: Mathematics 32A and 32B, or 33A and 33B, Physics 1C. Electromagnetic field concepts, waves and phasors, transmission lines and Smith chart, transient responses, vector analysis, introduction to Maxwell equations, static and quasi-static electric and magnetic fields. Letter grading.

101B. Electromagnetic Waves. (4) Formerly numbered Electrical Engineering 101B.) Lecture, four hours; discussion, one hour; outside study, seven hours. Enforced requisite: course 101A. Time-varying fields and Maxwell equations, plane wave propagation and interaction wavefronts and Poynting vector, guided waves in waveguides, phase and group velocity, radiation and antennas. Letter grading.


110. Circuit Theory I (Honors). (4) Formerly numbered Electrical Engineering 110H.) Lecture, one hour; laboratory, one hour; outside study, one hour. Enforced corequisite: course 10. Experiments with basic circuits containing resistors, capacitors, inductors, and transformers. Ohm’s law, voltage and current division; Thevenin and Norton equivalent circuits, superposition, transient and steady state analysis. Letter grading.


110H. Circuit Theory II (Honors). (4) Formerly numbered Electrical Engineering 110H.) Lecture, four hours; discussion, one hour; outside study, eight hours. Enforced requisites: courses 10, M16 (or Computer Science M51A). 102. Corequisite: course 111L (enforced only for Computer Science and Electrical Engineering majors). Sinusoidal excitation and phasors, AC steady state analysis, AC steady state power, network functions, poles and zeros, frequency response, mutual inductance, ideal transformer, application of Laplace transforms to circuit analysis. Letter grading.

110L. Circuit Measurements Laboratory. (2) Formerly numbered Electrical Engineering 110L.) Laboratory, four hours; outside study, two hours. Requisites: course 100 or 110. Experiments with basic circuits containing resistors, capacitors, inductors, and op-amps. Chm’s law voltage and current division, Thevenin and Norton equivalent circuits, superposition, transient and steady state analysis, and frequency response principles. Letter grading.

111L. Circuits Laboratory I. (1) Formerly numbered Electrical Engineering 111L.) Lecture, one hour; laboratory, one hour; outside study, one hour. Enforced requisites: courses 110, 110L. Enforced corequisite: course 111. Experiments with electrical circuits containing resistors, capacitors, inductors, transformers, and op-amps. Steady state power analysis, frequency response principles, op-amp-based circuit synthesis, and two-port network principles. Letter grading.

112. Introduction to Power Systems. (4) Formerly numbered Electrical Engineering 112.) Lecture, four hours; discussion, one hour; outside study, seven hours. Enforced requisite: course 110. Complete overview of organization and operation of interconnected power systems. Development of appropriate models for interconnected power systems and learning how to perform power flow, economic dispatch, and short circuit analysis. Introduction to power system transient and dynamic responses. Letter grading.


114. Speech and Image Processing Systems Design. (4) Formerly numbered Electrical Engineering 114.) Lecture, three hours; discussion, one hour; laboratory, two hours; outside study, six hours. Enforced requisite: course 113. Completion of projects begun in course 113DA. Letter grading.


115B. Analog Electronics Laboratory I. (2) Formerly numbered Electrical Engineering 115AL.) Laboratory, four hours; outside study, two hours. Enforced requisites: courses 110L or 111L, 115A. Experimental determination of device characteristics, resistive diode circuits, single-stage amplifiers, composite transistor stages, effect of feedback on single-stage amplifiers, operational amplifiers, and operational amplifier circuits. Introduction to hand and computer-aided design techniques for design and implementation of signal processing and communications systems. Letter grading.

115C. Digital Electronic Circuits. (4) Formerly numbered Electrical Engineering 115C.) Lecture, four hours; discussion, one hour; outside study, eight hours. Enforced requisite: course 115A. Analysis and design of digital amplifiers and bistable and MOS logic circuits. Equivalent circuits, CMOS technology, digital logic families, Pass-transistor logic, pass-transistor, and dynamic logic circuits. Letter grading.

115D. Digital Electronics. (4) Formerly numbered Electrical Engineering 115D.) Lecture, five hours; discussion, one hour; outside study, seven hours. Requisites: courses 100 or 115A, and Computer Science M51A. Transistor-level digital circuit analysis and design. Modern logic families. Letter grading. CMOS, pass-transistor, dynamic logic. Integrated circuit (IC) layout,
digital circuits (logic gates, flipflops/latches, counters, etc.), computer-aided simulation of digital circuits.

Letter grading.

115E. Design Studies in Electronic Circuits. (4) (Formerly numbered Electrical Engineering 115E.) Lecture, four hours; discussion, one hour; outside study, seven hours. Enforced requisite: course 102., course 115B. Design and analysis of integrated circuit process design through lectures to complement other laboratory-based design courses. Topics vary by instructor and include communication systems, electronics, and microprocessors. Tracking and measurement and may entail simulation-based design projects. Emphasis throughout on design-oriented analysis of rigorous approach to practice circuit design. Letter grading.

M116C. Computer Systems Architecture. (4) (Formerly numbered Electrical Engineering M116C.) (Same as Computer Science M151B.) Lecture, four hours; discussion, two hours; outside study, six hours. Enforced requisites: course 116 or Computer Science M51A, Computer Science 33. Recommended: course 116M or Computer Science M152A, Computer Science 111. Computer system organization and design; implementation of CPU datapath and control, instruction set design, memory hierarchy (caches, main memory, virtual memory) organization and management, instruction formats (bus structures, interrupts, DMA), performance evaluation, pipelined processors. Letter grading.

M116L. Introductory Digital Design Laboratory. (2) (Formerly numbered Electrical Engineering M116L.) (Same as Computer Science M152A.) Laboratory, three hours; discussion, one hour; outside study, two hours. Enforced requisite: course M16 or Computer Science M51A. Hands-on design, implementation, and debugging of digital logic circuits, use of computer-aided design tools for schematic capture and simulation, implementation of complex circuits using programmed array logic, design projects. Letter grading.

M119. Fundamentals of Embedded Networked Systems. (4) (Formerly numbered Electrical Engineering M119.) (Same as Computer Science M119.) Lecture, four hours; discussion, one hour; outside study, eight hours. Enforced requisite: course 2. Introduction to digital and analog signal representation. Computer systems operating in real-time. Topics include signal propagation and modeling, sensing, node architecture and operation, and applications. Letter grading.

121B. Principles of Semiconductor Device Design. (4) (Formerly numbered Electrical Engineering 121B.) Lecture, three hours; discussion, one hour; outside study, eight hours. Enforced requisite: course 2. Introduction to design of bipolar and MOS transistors, equivalent circuits, high-frequency behavior, voltage limitations. Letter grading.

121DA-121DB. Semiconductor Processing and Device Design. (4-4) (Formerly numbered Electrical Engineering 121DA-121DB.) Design fabrication and characterization of n-p junction and transistors. Students perform various processing tasks such as wafer preparation, oxidation, diffusion, metallization, and photolithography. Introduction to CAD tools and microfabrication techniques that have been broadly applied in industry and academia, including various photolithography technologies, physical and chemical deposition methods, optimization of photolithography process flow to complement other laboratory-based design courses. Topics vary by instructor and may entail simulation-based design projects. Emphasis throughout on design-oriented analysis of rigorous approach to practice circuit design. Letter grading.


123B. Fundamentals of Solid-State II. (4) (Formerly numbered Electrical Engineering 123B.) Lecture, four hours; outside study, eight hours. Enforced requisites: course 123A, Properties of solid-state materials, lattice vibrations, thermal properties, dielectric, magnetic, and superconducting properties. Letter grading.

128. Principles of Nanoelectronics. (4) (Formerly numbered Electrical Engineering 128.) Lecture, four hours; discussion, four hours; outside study, four hours. Enforced requisite: Physics 1C. Introduction to fundamentals of nanoscience for electronics nanosystems. Principles of operation of electronic charge, effective mass, Bohr magneton, and spin, as well as theoretical approaches. From these nanoscale components, discussion of basic behaviors of nanosystems such as analysis of dynamics, variability, and noise, contrasted with those of scaled CMOS. Incorporation of design project in which students are challenged to design electronics nanosystems. Letter grading.

131A. Probability and Statistics. (4) (Formerly numbered Electrical Engineering 131A.) Lecture, four hours; discussion, one hour; outside study, 10 hours. Enforced requisites: course 102 (enforced), Mathematics 32B, 32B. Introduction to mathematical probability, including random variables and vectors, distributions and densities, moments, characteristic functions, and limit theorems. Applications to communication, control theory, machine learning, and other fields. Emphasis on simulation and generation of random events. Letter grading.

132A. Introduction to Communication Systems. (4) (Formerly numbered Electrical Engineering 132A.) Lecture, four hours; discussion, one hour; outside study, seven hours. Enforced requisites: courses 102 and 113A. Review of basic probability, basics of hypothesis testing, sufficient statistics and waveform communication. Probability models for digital communications, basics of error control coding, error correction, and fault tolerance. Emphasis throughout on design-oriented analysis of rigorous approach to practice circuit design. Letter grading.

132B. Data Communications and Telecommunication Networks. (4) (Formerly numbered Electrical Engineering 132B.) Lecture, four hours; discussion, one hour; outside study, seven hours. Enforced requisites: course 131A. Layered communications architectures. Queueing system modeling and analysis. Error control, flow and congestion control. Packet switching, circuit switching, and ATM. Performance evaluation; analysis and design. Multiple-access communications: TDMA, FDMA, polling, random access. Local, metropolitan, wide area, integrated services networks. Letter grading.

133A. Applied Numerical Computing. (4) (Formerly numbered Electrical Engineering 133A.) Lecture, four hours; discussion, one hour; outside study, seven hours. Enforced requisites: course 131A, and Civil and Environmental Engineering 110 or Mathematics 170A or 170E or Statistics 100A, course 132B or Computer Science 118, Computer Science 33. Design trade-offs and principles of operation of cyber physical systems such as image sensors and processors constituting Internet of Things. Topics include signal propagation and modeling, sensing, node architecture and operation, and applications. Letter grading.

133B. Mathematical Tools for Electrical Engineers. (4) (Formerly numbered Electrical Engineering 133B.) Lecture, four hours; discussion, one hour; outside study, seven hours. Enforced requisites: courses 102 and 113A. Numerical methods: quadrature, interpolation and approximation; splines. Zeros and bounds on error; iterative methods for solving linear systems, eigenvalues; approximation of nonlinear equations; optimization of nonlinear equations. Linear least squares and orthogonal (QR) factorization; statistical interpretation. Numerical integration; Newton method; nonlinear systems; linear and nonlinear ordinary differential equations. Eigenvalues and singular values; QR algorithm; statistical applications. Letter grading.


134. Graph Theory in Engineering. (4) (Formerly numbered Electrical Engineering 134.) Lecture, four hours; discussion, one hour; outside study, seven hours. Basics of graph theory, including trees, bipartite graphs, matching, graph coloring, and planar graphs and networks. Emphasis on reducing real-world engineering problems to graph theory formulation. Letter grading.


142. Linear Systems: State-Space Approach. (4) (Formerly numbered Electrical Engineering 142.) Lecture, four hours; discussion, one hour; outside study, seven hours. Enforced requisite: course 132B. State-space methods of linear system analysis and synthesis, with application to problems in networks, control, and system modeling. Letter grading.

C143A. Neural Signal Processing. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Enforced requisites: course 131A, Mathematics 33A. Topics include fundamental properties of electrical activity in neurons, neurobiology, and induction neural activity; spiking statistics and Poisson processes; generative models and classification; regression and Kalman filtering; principal components analysis, factor analysis, and expectation-maximization. Concurrently scheduled with course C243A.

M146. Introduction to Machine Learning. (4) (Formerly numbered Electrical Engineering M146.) (Same as Computer Science M146.) Lecture, four hours; discussion, one hour; outside study, seven hours. Enforced requisites: courses 131A or Civil and Environmental Engineering 110 or Mathematics 170A or 170E or Statistics 100A. Computer Science 33. Introduction to supervised data science and modeling, data sources, principles of operation of common tools for data analysis, and application of tools and models to data gathering and analysis. Topics include statistics, machine learning, optimization, kernel methods, clustering, expectation maximization, principal component analysis, decision theory, reinforcement learning and deep learning. Letter grading.

C147. Neural Networks and Deep Learning. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Enforced requisites: courses 131A, 133A or 205A, and M146, or equivalent. Review of machine learning concepts; maximum likelihood; supervised classifiers; neural network architectures; backpropagation; regularization for training neural networks; optimization for training neural networks; convolutional neural networks; practical CNN architectures; deep learning libraries in Python (Keras); neural network backpropagation through time, long-term short-memory and gated recurrent units; variational autoencoders; generative adversarial networks; adversarial examples and training. Concurrently scheduled with course C247. Letter grading.

M153. Introduction to Microscale and Nanoscale Manufacturing, (4) (Formerly numbered Electrical Engineering M153.) (Same as Mechanical Engineering M153, Chemical Engineering M153, and Mechanical and Aerospace Engineering M183B.) Lecture, three hours; laboratory, four hours; outside study, five hours. Enforced requisites: Courses CB1, 1B, 1C, 1D, 4AL, 4BL. Introduction to general manufacturing methods, mechanisms, constraints, and microfabrication and nanofabrication. Focus on concepts, physics, and fabrication techniques that have been broadly applied in industry and academia, including various photolithography technologies, physical and chemical depo-
sition methods, and physical and chemical etching techniques, power dividers, directional couplers, active devices, transistor amplifier design. Letter grading.

16C. Introduction to Microwave Systems. (4) (Formerly numbered Electrical Engineering 163C.) Lecture, one hour; laboratory, three hours; outside study, eight hours. Enforced requisites: courses 101A, 101B, 163A. Course 163A is enforced requisite to 163DB. Limited to senior Electrical Engineering majors. Capstone design course, with emphasis on transmission line-based circuits and components to address need in industry and research community for students with microwave and wireless design experiences. Standard design procedure for waveguide and transmission line-based microwave circuits and systems to gain experience in using Microwave CAD software such as Agilent ADS or HFSS. How to fabricate and test these designs, In Progress grading (credit to be given only on completion of course 163DB).

163B. Microwave and Wireless Design II. (4) (Formerly numbered Electrical Engineering 163DB.) Lecture, one hour; laboratory, three hours; outside study, eight hours. Enforced requisites: courses 101A, 101B, 163A, 163DA. Lecture, four hours; discussion, one hour; outside study, seven hours. Enforced requisite: course 101B. Transmission lines description of waveguides, impedance matching techniques, power dividers, directional couplers, active devices, transistor amplifier design. Letter grading.

170A. Photonic Devices and Circuits. (4) (Formerly numbered Electrical Engineering 170B.) Lecture, four hours; recitation, one hour; outside study, seven hours. Enforced requisite: course 170A. Coverage of core knowledge of practical photonic devices and circuits. Topics include optical waveguides, optical fibers, optical couplers, optical modulators, lasers and light-emitting diodes, optical detectors, and integrated photonic devices and circuits. Letter grading.

170C. Photonic Sensors and Solar Cells. (4) (Formerly numbered Electrical Engineering 170C.) Lecture, four hours; recitation, one hour; outside study, seven hours. Enforced requisite: course 170A. Coverage of basic fundamentals of detection of light for communication and sensing, as well as conversion of light to electrical energy in solar cells. Intrinsically visible devices, photodetectors, noise processes and figures of merit, thermal detectors, and photovoltaic solar cells of various types and materials. Letter grading.

1717L. CMOS Photonics Systems Laboratory (2 to 4) (Formerly numbered Electrical Engineering M1717L) SAME as Computer Science M1717L. Laboratory, four to eight hours; outside study, two to four hours. Recommended preparation: course M167L. Letter grading. Topics include manipulation, motion and path planning, learning and adaptation, and human–robot interaction. Additional topics may include distributed control systems, bio-inspired robotics, project management, and societal implications. Open-ended projects vary annually. Student teams create and analyze robotic systems for various applications, with presentation of project results. In Progress grading (credit to be given only on completion of course 1733B).

1733B. Design of Robotic Systems II. (4) (Formerly numbered Electrical Engineering 1733B.) Laboratory, four hours; outside study, eight hours. Requisite: course 1733A. Recommended: courses 141, 142. Course 1733A is required to 1733B. Limited to senior Electrical Engineering majors. Topics in robotic design include integrated electromechanical design, design for manufacturing (DFM), design software, and design automation. Topics in robotic manufacturing include materials, sensors are sensing, and rapid prototyping. Topics in control include manipulation, manipulation, learning and adaptation, and human–robot interaction. Additional topics may include distributed control and robotic systems, bio-inspired robotics, project management, and societal implications. Open-ended projects vary annually. Student teams create and analyze robotic systems for various applications. Oral and written presentation of project results. Letter grading.

184DA-184DB. Independent Group Project Design. (2) (Formerly numbered Electrical Engineering 184DA-184DB) Laboratory, five hours; discussion, one hour. Enforced requisites: courses M16, 111L. Course 184DA is enforced requisite to 184DB. Courses centered on group project that runs year long to give students intensive experience on hardware design, microcontroller programming, and project coordination. Several projects on robots that traverse small mazes and courses offered yearly and target regional competitions. Students may submit proposals that are evaluated and approved by faculty mentors. Topics include sensing circuits and amplifier-based design, microcontroller programming, feedback control, actuation, and motor control. In Progress (184DA) and letter (184DB) grading.

M185. Introduction to Plasma Electronics. (4) (Formerly numbered Electrical Engineering M185.) (Same as Physics M122.) Lecture, three hours; discussion, one hour; outside study, eight hours. Enforced requisite: course 101A or Physics 101A. Senior-level introductory treatment of electromagnetic devices and applications to materials processing, generation of coherent radiation and particle beams, and renewable energy sources. Letter grading.

Student teams create high-performance designs that manage trade-offs among subsystem components, including cost, performance, ease of use, and other real-world constraints. Oral and written presentation of project results. 180DA. Lecture, two hours; laboratory, four hours; outside study, eight hours. Requisite: course 183A or Physic 110A. Senior-level introductory treatment of electromagnetic devices and applications to materials processing, generation of coherent radiation and particle beams, and renewable energy sources. Letter grading.

CM182. Science, Technology, and Public Policy. (4) (Formerly numbered Electrical Engineering CM182.) Lecture, three hours. Recent and continuing advances in science and technology are raising profoundly important public policy issues. Consideration of selection of critical policy issues, each of which has substantial ethical, social, economic, political, scientific, and technological aspects. Concurrently scheduled with course CM262. Letter grading.

183DA. Design of Robotic Systems I. (4) (Formerly numbered Electrical Engineering 183DA.) Lecture, four hours; laboratory, two hours; outside study, six hours. Recommended: course 102. Recommended: courses 141, 142. Course 183DA is required to 183DB. Limited to senior Electrical Engineering majors. Topics in robotic design include integrated electromechanical design, design for manufacturing (DFM), design software, and design automation. Topics in robotic manufacturing include materials, sensors are sensing, and rapid prototyping. Topics in control include manipulation, manipulation, learning and adaptation, and human–robot interaction. Additional topics may include distributed control and robotic systems, bio-inspired robotics, project management, and societal implications. Open-ended projects vary annually. Student teams create and analyze robotic systems for various applications. Oral and written presentation of project results. Letter grading.
188. Special Courses in Electrical Engineering. (4) (Formerly numbered Electrical Engineering 188.) Seminar, four hours; outside study, eight hours. Special topics in electrical engineering for undergraduate students taught on experimental or temporary basis, such as those taught by resident and visiting faculty members. May be repeated once for credit with topic or instructor change. Letter grading.

189. Advanced Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to undergraduate honors course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be repeated toward honors credit for eligible students. Honors consent noted on transcript. P/NP or letter grading.

194. Research Group Seminars: Electrical Engineering. (2 to 4) (Formerly numbered Electrical Engineering 194.) Seminar, four hours; outside study, eight hours. Designed for undergraduate students who are part of research group. Discussion of research methods and current literature in field. May be repeated for credit. Letter grading.

195. Directed Research in Electrical Engineering. (2 to 8) (Formerly numbered Electrical Engineering 195.) Tutorial, to be arranged. Limited to juniors/seniors. Supervised individual research or investigation under guidance of faculty member. Culminating paper project required. May be repeated for credit with school approval. Individual contract required; enrollment petitions available in Office of Academic and Student Affairs. Letter grading.

Graduate Courses

201A. VLSI Design Automation. (4) (Formerly numbered Electrical Engineering 201A.) Lecture, four hours; discussion, one hour; outside study, seven hours. Requisite: course 115C. Fundamentals of design automation; computer and electronic design tools; introduction to circuit simulation and computer-aided design; verification and test. Letter grading.

201C. Modeling of VLSI Circuits and Systems. (4) (Formerly numbered Electrical Engineering 201C.) Lecture, four hours; outside study, eight hours. Requisite: course 115C. Detailed study of VLSI circuit and system models considering performance, signal integrity, power and thermal effects, and impact on manufacturability; Discussion of principles of modeling and optimization codevelopment. Letter grading.

201D. Design in Nanoscale Technologies. (4) (Formerly numbered Electrical Engineering 201D.) Lecture, four hours; discussion, one hour; outside study, seven hours. Requisite: course 115C. Challenges of digital circuit design and layout in deeply scaled technologies, with focus on design-manufacturing interactions. Summary of large-scale digital design flow; basic manufacturing flow; lithographic patterning, resolution enhancement, and mask preparation; yield and variation modeling; circuit reliability and aging issues; design rules and their optimization; layout design for manufacturing; test structures and process control; circuit ana architecture methods for variability mitigation. Letter grading.

202A. Embedded Systems. (4) (Formerly numbered Electrical Engineering 202A.) (Same as Computer Science M213A.) Lecture, four hours; discussion, one hour; outside study, seven hours. Designed for graduate computer science and electrical engineering students. Methodologies and technologies for designing embedded systems. Topics include hardware and software platforms for embedded systems, techniques for modeling and specification of system behavior, software organization, real-time operating system design, communication and visiting faculty members. May be repeated once for credit with topic or instructor change. Letter grading.

202B. Energy-Aware Computing and Physical Systems. (4) (Formerly numbered Electrical Engineering 202B.) (Same as Computer Science M213B.) Lecture, four hours; outside study, eight hours. Requisite: course M16 or Computer Science M61A, M61B, M61C, Electrical Engineering M151A, Computer Science M151B, and Computer Science 111. System-level management and cross-layer methods for power and energy consumption in computing and communication using a variety of techniques ranging from perfect codes, mobile, personal, enterprise, and data-center scale. Computing, networking, sensing, and control technologies and algorithms for improving energy sustainability; Topics include modeling of energy consumption, energy sources, and energy storage; dynamic power management; power-performance-scaling and energy proportionality; duty-cycling, power-aware scheduling, low-power protocols; battery modeling and management; thermal management; sensing of power consumption. Letter grading.

202C. Networked Embedded Systems Design. (4) (Formerly numbered Electrical Engineering 202C.) Lecture, four hours; laboratory, four hours; outside study, four hours. Designed for graduate computer science and electronic engineering students. Training in combination of networked embedded systems design combining embedded hardware platform, embedded operating system, and hardware/software interface. Essentially background for research and industry career paths in industry. Topics include devices for applications ranging from conventional wireless mobile devices to new area of wireless health. Laboratory design microprojects based on state-of-the-art embedded hardware platform. Letter grading.

205A. Matrix Analysis for Scientists and Engineers. (4) (Formerly numbered Electrical Engineering 205A.) Lecture, four hours; discussion, one hour; outside study, seven hours. Preparation: one undergraduate linear algebra course. Designed for first-year graduate students in all branches of engineering, science, and related disciplines. Introduction to matrix theory and linear algebra, in which virtually all of modern science and engineering is conducted. Review of matrices taught in undergraduate courses and introduction to graduate-level topics. Letter grading.


209AS. Special Topics in Circuits and Embedded Systems. (4) (Formerly numbered Electrical Engineering 209AS.) Lecture, four hours; discussion, one hour; outside study, seven hours. Special topics in one or more aspects of circuits and embedded systems, such as digital, analog, RF ICs, and communication frequency integrated circuits (RF ICs); electronic design automation; wireless communication circuits and systems; embedded processor architectures; embedded software; distributed sensor and actuator networks; robotics; and embedded security. May be repeated for credit with topic change. S/U or letter grading.

209BS. Seminar: Circuits and Embedded Systems. (2 to 8) (Formerly numbered Electrical Engineering 209BS.) Seminar, two to four hours; outside study, four to eight hours. Seminars and discussions on current and advanced topics in one or more aspects of circuits and embedded systems, such as digital, analog, mixed-signal, and radio frequency integrated circuits (RF ICs); electronic design automation; wireless communication circuits and systems; embedded processor architectures; embedded software; distributed sensor and actuator networks; robotics; and embedded security. May be repeated for credit with topic change. S/U grading.


214A. Digital Speech Processing. (4) (Formerly numbered Electrical Engineering 214A.) (Same as Bioengineering M214A.) Lecture, three hours; laboratory, two hours; outside study, seven hours. Requisite: course 113. Theory and applications of digital processing of speech signals. Mathematical models of human speech production and perception mechanisms. Speech analysis/synthesis techniques. Techniques include linear prediction, filter-bank models, and homomorphic filtering. Applications to speech synthesis, automatic recognition, and hearing aids. Letter grading.

215. Advanced Design. (4) (Formerly numbered Electrical Engineering 215B.) Lecture, three hours; discussion, one hour; computer assignments, two hours; outside study, six hours.

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215A. Analog Integrated Circuit Design. (4) Formerly numbered Electrical Engineering 215A. Lecture, four hours; discussion, one hour; outside study, seven hours. Requisite: course 115B. Analysis and design of analog integrated circuits. MOS and bipolar device structures, amplifiers and differential amplifiers, noise, feedback, operational amplifiers, offset and distortion, sampling devices and discrete-time circuits, bandgap references. Letter grading.

215B. Advanced Digital Integrated Circuits. (4) Formerly numbered Electrical Engineering 215B. Lecture, four hours; discussion, one hour; outside study, seven hours. Requisites: courses 115C, M216A. Analysis and comparison of modern logic families, VLSI memories (SRAM, DRAM, and ROMs), and power amplifiers. Noise, feedback, operational amplifiers, offset and distortion, sampling devices and discrete-time circuits, bandgap references. Letter grading.

215C. Analysis and Design of RF Circuits and Systems. (4) Formerly numbered Electrical Engineering 215C. Lecture, four hours; discussion, one hour; outside study, seven hours. Requisite: course 215A. Principles of RF circuit and system design, with emphasis on monolithic implementation in VLSI technologies. Basic circuit techniques, design of antenna arrays, and transceiver architectures, low-noise amplifiers and mixers, oscillators, frequency synthesizers, power amplifiers. Letter grading.


215E. Signaling and Synchronization. (4) Formerly numbered Electrical Engineering 215E). Lecture, four hours; discussion, one hour; outside study, seven hours. Requisites: courses 215A, M216A. Analysis and design of circuits for synchronization and communication for VLSI systems. Use of both digital and analog design techniques to improve data rate of electronics between functional blocks, chips, and systems. Advanced clocking methodologies, clock domain design for signal integrity, and high-performance wire-line transmitters, receivers, and timing recovery circuits. Letter grading.

M216A. Design of VLSI Circuits and Systems. (4) Formerly numbered Electrical Engineering M216A). Same as Computer Science M285A. Lecture, four hours; discussion, two hours; laboratory, four hours; outside study, two hours. Requisites: courses M16 or Computer Science M51A, and 115A. Recommended: course 115C, LSI/XL/LSI design and application in computer systems. Fundamental design techniques that can be used to implement complex integrated systems on chips. Letter grading.

216B. VLSI CAD Analysis and Design. (4) Formerly numbered Electrical Engineering 216B). Lecture, four hours; outside study, eight hours. Advanced concepts in VLSI signal processing, with emphasis on architecture design and optimization within block-based description that can be mapped to hardware. Fundamental concepts from digital signal processing (DSP) theory, architecture, and circuit design applied to complex DSP algorithms in emerging applications for personal communications and healthcare. Letter grading.

M216C. LSI in Computer System Design. (4) Formerly numbered Electrical Engineering M216C). Same as Computer Science M285C. Lecture, four hours; laboratory, four hours; outside study, four hours. Requisite: course M216A. LSI/VLSI design and application in computer systems. In-depth studies of VLSI architectures and VLSI design tools. Letter grading.

M217. Biomedical Imaging. (4) Formerly numbered Electrical Engineering M217). Same as Bioengineering M217). Lecture, three hours; discussion, one hour; outside study, eight hours. Requisite: course 114 or 211A. Optical imaging modalities in biomedicine. Other topics include optical techniques, such as optical coherence tomography and optical coherence tomography imaging, briefly for comparison purposes. Letter grading.

218. Network Economics and Game Theory. (4) Formerly numbered Electrical Engineering 218C. Lecture, four hours; discussion, one hour; outside study, seven hours. Discussion of how different competitive and noncooperative games among agents can be constructed to model, analyze, and optimize, and shape economic interactions in different networks and system settings. How strategic agents can successfully compete with each other for limited and time-varying resources by optimizing their decision process led by their own and other agents’ responses to their actions. Discussion of existing multiplier learning techniques and learning in games, including adjustment processes for learning equilibria, fictitious play, regret-learning, and more. Letter grading.

219. Large-Scale Data Mining: Models and Algorithms. (4) Formerly numbered Electrical Engineering 219A. Lecture, four hours; discussion, one hour; outside study, seven hours. Introduction of variety of scalable data modeling and analysis techniques from different disciplines. Topics include supervised and unsupervised data modeling tools from machine learning, such as support vector machines, different regression engines, different types of regularization and kernel techniques, deep learning, and Bayesian graphical models. Emphasis on techniques to evaluate relative performance of different methods and their applicability. Includes computer projects that explore entire data analysis and modeling cycle: collecting and cleaning large-scale data, deriving predictive and causal models, and evaluating performance of different models. Letter grading.

221A. Physics of Semiconductor Devices I. (4) Formerly numbered Electrical Engineering 221A). Lecture, four hours; discussion, one hour; outside study, seven hours. Physical principles and design considerations of junction devices. Letter grading.

221B. Physics of Semiconductor Devices II. (4) Formerly numbered Electrical Engineering 221B). Lecture, four hours; outside study, eight hours. Principles and design considerations of microwave solid-state devices: Schottky barrier mixer diodes, IMPATT diodes, transferred electron devices and charge-coupled devices. Letter grading.

221C. Microwave Semiconductor Devices. (4) Formerly numbered Electrical Engineering 221C). Lecture, four hours; discussion, one hour; outside study, seven hours. Physical principles and design considerations of microwave solid-state devices: Schottky barrier mixer diodes, IMPATT diodes, transferred electron devices, tunnel diodes, microwave transistors. Letter grading.

222. Integrated Circuits Fabrication Processes. (4) Formerly numbered Electrical Engineering 222). Lecture, four hours; discussion, one hour; outside study, seven hours. Requisite: course 2. Principles of integrated circuit fabrication and practical limitations of integrated circuits design. Topics include bulk crystal and epitaxial growth, thermal oxidation, diffusion, ion-implantation, chemical vapor deposition, dry etching, lithography, and metallization. Introduction of advanced process simulation tools. Letter grading.


229. Seminar: Advanced Topics in Solid-State Electronics. (4) Formerly numbered Electrical Engineering 229A. Seminar, four hours; outside study, eight hours. Requisites: courses 223, 224. Current research areas, such as radiation effects in semiconductor devices, diffusion in semiconductors, optical and microwave semiconductor devices, nonlinear optics, and electronic and optical emission. Letter grading.

236. Advanced Electrical Engineering Seminar. (1) Formerly numbered Electrical Engineering 236A. Seminar, two hours; outside study, six hours. Preparation: successful completion of PhD major field examination. Seminar on current research topics in solid-state and quantum electronics (Section 1) or in electronic circuit theory and applications (Section 2). Students report on tutorial topic and on research topic in their dissertation area. May be repeated for credit. S/U grading.

238A. Detection and Estimation in Communication. (4) Formerly numbered Electrical Engineering 238A). Lecture, four hours; discussion, one hour; outside study, seven hours. Requisite: course 131A. Applications of estimation and detection concepts in communication and signal processing; random signal and noise characterizations by analysis and simulations; mean square (MS) and maximum likelihood (ML) estimations and algorithms; detection under ML, Bayes, and Neyman/Pearson (NP) criteria; signal-to-noise ratio (SNR) and error probability evaluations. Introduction to Monte Carlo simulations. Letter grading.


239. Seminar: Advanced Topics in Solid-State Electronics. (4) Formerly numbered Electrical Engineering 239A. Seminar, four hours; outside study, eight hours. Requisites: courses 223, 224. Current research areas, such as radiation effects in semiconductor devices, diffusion in semiconductors, optical and microwave semiconductor devices, nonlinear optics, and electronic and optical emission. Letter grading.
231A. Information Theory: Channel and Source Coding. (4) (Formerly numbered Electrical Engineering 231A.) Lecture, four hours; discussion, one hour; outside study, seven hours. Requisite: course 131A. Fundamentals information compression, transmission, processing, and learning. Topics include limits and algorithms for lossless data compression, connections to model estimation and learning, channel capacity, rate versus distortion in lossy compression, and basic information theory for networks. Letter grading.

231B. Network Information Theory. (4) (Formerly numbered Electrical Engineering 231B.) Lecture, four hours; discussion, one hour; outside study, seven hours. Enforced requisite: course 231A. Point-to-point multiple-input, multiple-output (MIMO) wireless channels: capacity and outage; single-hop networks: multiple access, broadcast, interference, and relay channels; channels and sources with side-information; basics of multiterminal lossy data compression; basics of network information flow over general noisy networks. Letter grading.

231E. Channel Coding Theory. (4) (Formerly numbered Electrical Engineering 231E.) Lecture, four hours; outside study, eight hours. Requisite: course 131A. Fundamentals of error control codes and decoding algorithms. Topics include block codes, convolution codes, trellis codes, and turbo codes. Letter grading.

232A. Stochastic Modeling with Applications to Telecommunication Systems. (4) (Formerly numbered Electrical Engineering 232A.) Lecture, four hours; discussion, one hour; outside study, seven hours. Enforced requisite: course 131A. Stochastic processes as applied to study of telecommunication systems, traffic engineering, business, and management. Discrete-time and continuous-time Markov processes. Renewal processes, regenerative processes, Markov renewal, semi-Markov and semiregenerative stochastic processes. Decision and reward processes. Applications to traffic modeling of basic telecommuni-
cations and computer communication networks, Internet, and management systems. Letter grading.

232B. Queuing Systems and Intelligent Transportation Networks. (4) (Formerly numbered Electrical Engineering 232B.) Lecture, four hours; outside study, eight hours. Requisite: course 131A or equivalent. Modeling, analysis, and design of queuing systems; traffic flows and congestion in transportation systems, communications networks, autonomous vehicular networks, business and management systems. Markovian and non-Markovian queuing systems and their applications to traffic engineering, autonomous transportation and autonomous vehicular systems; computer communications, management and business systems. Letter grading.

232D. Communications Networking and Traffic Management in Emergent Mobile Systems. (4) (Formerly numbered Electrical Engineering 232D.) Lecture, four hours; outside study, eight hours. Requisite: course 131A or equivalent. Analysis, design, and traffic management of autonomous mobile systems. Telecommunication networks, mobile wireless networks, and multiple-access communication systems. Networking architectures, multiple-access communi-
cation protocols, quality-of-service metrics, Switching, routing, networking protocols, and Internet. Autonomous mobile networked systems. Cellular wireless networks, WiFi mesh networks, peer-to-peer mobile networks, and sensor networks. Autonomous transportation networked systems. Traffic management archi-
curity mechanisms. Letter grading.

232E. Large-Scale Social and Complex Networks: Design and Algorithms. (4) (Formerly numbered Electrical Engineering 232E.) Lecture, four hours; discussion, one hour; outside study, seven hours. Modeling and design of large-scale complex networks, including social networks, peer-to-peer file-sharing networks, and genetic networks. Modeling of characteristic topological features of complex networks, such as power laws and percolation threshold. Mining topology to design algorithms for various applications, such as e-mail spam detection, friendship recommendations, viral popularity, and epidemics. Introduction to network algorithms, computational complexity, and nondeterministic, polyno-

233. Wireless Communication System Design, Modeling, and Optimization. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Requisite: course 113. Covers algorithms, ar-
chitectures, and implementation for radio transceivers, physical layer. Topics include multiple-access, antennas, radio interference, and relay, efficient architectures, channel pro-
duction price trade-offs, and wireless network design.

234A. Network Coding Theory and Applications. (4) (Formerly numbered Electrical Engineering 234A.) Lecture, four hours; discussion, one hour, outside study, seven hours. Topics include network coding, combinatorial approach and alphabet size, linear programming approach and throughput benefits, network code design algorithms, secure network coding and coding for wireless, other applications. Letter grading.

235A. Mathematical Foundations of Data Storage Systems. (4) (Formerly numbered Electrical Engineering 235A.) Lecture, four hours; discussion, one hour; outside study, three hours. Enforced requisite: course 131A or equivalent. Research developments in new mathematical techniques for emerging large-scale, ultra-reliable, and affordable data storage system-
tics; information-theoretic trade-offs, graph-based codes and algebraic codes and decoders for modern storage devices (e.g., Flash), rank modulation, re-writing codes, algorithms for data deduplication and synchronization networks of independent disks (RAID) systems. Letter grading.

235B. Linear Programming. (4) (Formerly numbered Electrical Engineering 235B.) Lecture, four hours; discussion, one hour, outside study, seven hours. Enforced requisite: Mathematics 115A or equivalent knowledge of linear algebra. Basic graduate course in linear optimi-
ration. Geometry of linear programming. Duality, Sim-
plicity, interior-point methods. Decompositions and large-scale optimization of network algorithms; stac-
gramming and complementary pivot theory. Engi-
dering applications. Introduction to integer linear pro-
gramming and computational complexity theory. Letter grading.

236A. Convex Optimization. (4) (Formerly numbered Electrical Engineering 236A.) Lecture, four hours; dis-
cussion, one hour; outside study, seven hours. Enforced requisite: Mathematics 115A or equivalent knowledge of linear algebra. Basic graduate course in linear optimi-
ration. Geometry of linear programming. Duality, Sim-
plicity, interior-point methods. Decompositions and large-scale optimization of network algorithms; stac-
gramming and complementary pivot theory. Engi-
dering applications. Introduction to integer linear pro-
gramming and computational complexity theory. Letter grading.

236B. Convex Optimization. (4) (Formerly numbered Electrical Engineering 236B.) Lecture, four hours; dis-
cussion, one hour; outside study, seven hours. Enforced requisite: course 236A. Introduction to convex optimization and its applications. Convex sets, functions, and ba-
sics of convex analysis. Convex optimization prob-
lems (linear and quadratic programming, second-
order cone and semidefinite programming, geometric programming). Lagrange duality and optimality condi-
tions. Applications of convex optimization. Uncon-
strained minimization methods. Interior-point and cutting-plane algorithms. Introduction to nonlinear pro-
gramming. Letter grading.

236C. Optimization Methods for Large-Scale Sys-
tems. (4) (Formerly numbered Electrical Engineering 236C.) Lecture, four hours; discussion, one hour; outside study, seven hours. Enforced requisite: course 236B. First-
order algorithms for convex optimization: subgradient method, conjugate gradient method, proximal gra-
dient and accelerated proximal gradient methods, block-coordinate descent, and conditional gradient.

237. Dynamic Programming. (4) (Formerly num-
ered Electrical Engineering 237.) Lecture, four hours; outside study, eight hours. Recommended requisite: course 232A or 236A or 236B. Introduction to
to mathematical analysis of sequential decision pro-
cesses. Finite horizon model in both deterministic and stochastic cases. Finite-state infinite horizon model. Methods of solution. Examples from inventory theory, finance, optimal control and estimation, Markov deci-
sion processes, combinatorial optimization, communi-
cations. Letter grading.

238. Multimedia Communications and Processing. (4) (Formerly numbered Electrical Engineering 238.) Lecture, four hours; discussion, one hour; outside study, eight hours. Presentation of key con-
cepts, principles, and algorithms of online learning and learning how to make decisions under uncertainty in broadband, networked systems, optimal stopping, reinforcement learning, structural results for online learning, multiarmed band-
dits learning, multiagent learning, multilevel deep learning. Letter grading.

239A. Special Topics in Signals and Systems. (4) (Formerly numbered Electrical Engineering 239AS.) Lecture, four hours; discussion, one hour; outside study, seven hours. Special topics in one or more as-
pcts of signals and systems, such as communica-
tions, control, image processing, information theory, multimedia, computer networking, optimization, speech processing, telecommunications, and VLSI signal processing. May be repeated for credit with topic change. S/U grading.

239BS. Seminar: Signals and Systems. (2 to 4) (Formerly numbered Electrical Engineering 239BS.) Seminar, two to four hours; outside study, four to eight hours. Topics include advanced topics in one or more aspects of signals and systems, such as communications, control, image processing, information theory, multimedia, computer networking, optimization, speech processing, telecommunications, and VLSI signal processing. May be repeated for credit with topic change. S/U grading.

M240. Linear Dynamics. (4) (Formerly numbered Electrical Engineering M240A.) (Same as Chemical Engineering M280A and Mechanical and Aerospace Engineering M270A.) Lecture, four hours; outside study, eight hours. Requisite: course 141 or Mechanical and Aerospace Engineering 171A. State-
space description of linear time-invariant (LTI) and time-varying (LTV) systems in continuous and discrete
time. Linear algebra concepts such as eigenvalues and eigenvectors, singular values, Cayley/Hamilton theorem for characteristic polynomials; system sta-
ibility, controllability, observability, realizability, and

M240A. Linear Dynamic Systems. (4) (Formerly numbered Electrical Engineering M240A.) (Same as Chemical Engineering M280C and Mechanical and Aerospace Engineering M270C.) Lecture, four hours; outside study, eight hours. Requisite: course 240B. Applications of variational methods, Pontryagin maximum principle, Hamilton/Jacob/Bellman equation (dynamic programming) to optimal control of dynamic systems modeled by nonlinear ordinary differential equations.

M241. Stochastic Processes. (4) (Formerly num-
ered Electrical Engineering 241A.) Lecture, four hours; outside study, one hour; outside study, seven hours. Requisite: course 131A. Review of basic prob-
ability, axiomatic development, expectation, conver-
genence of random processes: stationarity, power spec-
tral density. Response of linear systems to random in-

M242A. Nonlinear Dynamic Systems. (4) (Formerly numbered Electrical Engineering 242A.) Lecture, four hours; discussion, one hour; outside study, seven hours. Requisite: course 131A. Review of basic prob-
ability, axiomatic development, expectation, conver-
genence of random processes: stationarity, power spec-
tral density. Response of linear systems to random in-
246. Foundations of Statistical Machine Learning. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Enforced requisites: course 131A, Mathematics 33A. Topics include fundamental properties of electrical activity in neurons; technology for measuring neural activity; spike train processing; generative models and classification; regression and Kalman filtering; principal components analysis, factor analysis, and expectation maximization. Concurrently scheduled. Letter grading.

247. Neural Networks and Deep Learning. (4) Lecture, four hours; discussion, two hours; outside study, eight hours. Enforced requisites: courses 131A, 133A or Mathematics 33A. Topics include unsupervised learning, clustering, (non-)linear dimensionality reduction, generative distribution estimation including Gaussian mixtures, expectation maximization, non-parametric distribution estimation, property testing and neural networks focused on distribution samplers and (variational) autoencoders [VAEs]; generative adversarial networks [GANs]; discussion of reinforcement learning. Letter grading.

M248S. Seminar: Systems, Dynamics, and Control. Topics. (2) Formerly numbered Electrical Engineering M248S. (Same as Chemical Engineering M297 and Mechanical and Aerospace Engineering M299A.) Seminar, four hours. Lecture, two hours; outside study, six hours. Enforced requisite: graduate engineering students. Presentations of recent topics by leading academic researchers from fields of systems, dynamics, and control. Students who work through these fields present their papers and results. S/U grading.

M250B. Microelectromechanical Systems (MEMS) Fabrication. (4) Formerly numbered Electrical Engineering M250B. (Same as Bioengineering M250B and Mechanical and Aerospace Engineering M250B.) Lecture, three hours; discussion, one hour; outside study, eight hours. Enforced requisite: course M153. Advanced discussion of micromachining processes used to construct MEMS. Coverage of many lithographic, deposition, and etching processes, as well as their combination in process integration. Materials issues such as thermal stress, mechanical properties, and residual/intrinsic stress. Letter grading.

M252. Microelectromechanical Systems (MEMS) Device Physics and Design. (4) Formerly numbered Electrical Engineering M252. (Same as Bioengineering M252 and Mechanical and Aerospace Engineering M252.) Lecture, four hours; discussion, one hour; outside study, seven hours. Introduction to MEMS design. Design methods, design rules, sensing and actuation mechanisms, microsensors, and microactuators. Designing MEMS to be produced with both foundry and nonfoundry processes. Computer-aided design for MEMS. Design project required. Letter grading.

M255. Neuroengineering. (4) Formerly numbered Electrical Engineering M255. (Same as Bioengineering M250 and Neuroscience M250.) Lecture, four hours; laboratory, three hours; outside study, five hours. Requisites: Mathematics 32A, Physics 1B or 5C. Introduction to principles and technologies of bioelectricity and neural signal recording, processing, and stimulation. Topics include bioelectricity, electrophysiology (action potentials, local field potentials, EEG, EOG), intracellular and extracellular recording, neural electrode technology, neural signal processing (neural signal frequency bands, filtering, spike detection, spike sorting, stimulus artifact removal), brain-computer interface, and brain-brain stimulation, and prosthetics. Letter grading.


257. Nanoscience and Technology. (4) Formerly numbered Electrical Engineering M257. (Same as Mechanical and Aerospace Engineering M267.) Lecture, four hours; outside study, eight hours. Introduction to fundamentals of nanoscale science and technology. Basic physical principles, quantum mechanics, chemical bonding and nanostructures, top-down and bottom-up (self-assembling) techniques, nanomaterialization; nanomaterials, nanoelectronics, and nobiointerface detection. Introduction to new knowledge and technologies in nano areas to understand scientific principles behind nanotechnology and inspire students to create new ideas in multidisciplinary nano areas. Letter grading.

260A. Advanced Engineering Electrodynamics. (4) Formerly numbered Electrical Engineering 260A.) Lecture, four hours; discussion, one hour; outside study, seven hours. Requisites: courses 101B, 162A. Advanced treatment of concepts in electrodynamics and their applications to modern engineering problems. Vector calculus in coordinate systems, solutions of wave equation and special functions. Reflection, transmission, and polarization. Vector potential, duality, reciprocity, and equivalence theorems. Scattering from cylinder, half-plane, wedge, and sphere, including radar cross-section characterization. Green’s functions in electromagnetics and dyadic calculus. Letter grading.


261. Microwave and Millimeter Wave Circuits. (4) Formerly numbered Electrical Engineering 261.) Lecture, four hours; discussion, one hour; outside study, seven hours. Requisites: course 163A. Rectangular and circular waveguides, microstrip, stripline, finite-, and dielectric waveguide components, with applications in microwave and millimeter wave integrated circuits. Substrate materials, surface wave phenomena. Analytical methods for discontinuity effects. Design of passive microwave and millimeter wave circuits. Letter grading.


274. Optical Communication and Sensing Design. (4) Formerly numbered Electrical Engineering 274.) Lecture, three hours; outside study, nine hours. Requi-sites: courses 170A and 170B or equivalent. Top-down introduction to physical layer design in fiber optic communication systems, including Telecom, Datacom, and CATV. Fundamentals of digital and an-dalog optical communication systems, fiber transmis-sion characteristics, and optical modulation tech-niques, including direct and external modulation and computer-aided design. Architectural-level design of fiber optic transceiver circuits, including preamplifier, quantizer, clock and data recovery, laser driver, and polarization control. Letter grading.

278A. Special Topics in Physical and Wave Elec-trronics. (4) Formerly numbered Electrical Engineering 278A.) Lecture, four hours; discussion, one hour; outside study, eight hours. Requisites: course 271. More advanced discussion of aspects of physical and wave electronics, such as electromagnetics, microwave and millimeter wave cir-cuits, photonics and optoelectronics, plasma elec-tronics, microelectromechanical systems, solid state, and nanotechnology. May be repeated for credit with topic change. S/U or letter grading.

278BS. Seminar in Physical and Wave Elec-trronics. (2 to 4) Formerly numbered Electrical Engineering 278BS.) Seminar, two to four hours; outside study, four to eight hours. Seminars and discussions on cur-
rent and advanced topics in one or more aspects of physical and wave electronics, such as electromagnetic wave propagation, microwave and millimeter wave circuits, photonics and optoelectronics, plasma electronics, microelectromechanical systems, solid state, and nanotechnology. May be repeated for credit with topic change. S/U grading.

279CS. Clean Green IGERT Brown-Bag Seminar. (1) (Formerly numbered Electrical Engineering 279CS.) Seminar, one hour. Required of students in Clean Energy for Green Industry (IGERT) Research. Literature seminar presented by graduate students and experts from around country who conduct research in energy harvest, storage, and conservation. S/U grading.

CM282. Technology, and Public Policy. (4) (Formerly numbered Electrical Engineering CM282.) Lecture. Three hours. Recent and continuing advances in science and technology are raising profoundly important public policy issues. Consideration of selection of critical policy issues, each of which has substantial ethical, social, economic, political, scientific, and technological aspects. Concurrently scheduled with course CM182. Letter grading.

285A. Plasma Waves and Instabilities. (4) (Formerly numbered Electrical Engineering 285A.) Lecture, four hours; outside study, eight hours. Prerequisites: courses 101A, 102A; M122. Wave phenomena in plasmas described by macroscopic fluid equations. Microwave propagation, plasma oscillations, ion acoustic waves, cyclotron waves, hydromagnetic waves, electron waves. Basic phenomena in plasmas arising from kinetic effects. S/U grading.

285B. Advanced Plasma Waves and Instabilities. (4) (Formerly numbered Electrical Engineering 285B.) Lecture, four hours; outside study, eight hours. Prerequisites: courses M185, and 285A or Physics 222A. Interaction of intense electromagnetic waves with plasmas exhibiting parametric instabilities, inhomogeneous and bound plasmas, nonlinear wave coupling and damping, parametric instabilities, anomalous resistivity, shock waves, laser heating. Emphasis on experimental considerations and techniques. Letter grading.


M293. Intellectual Property for Technology Entrepreneurs and Managers. (2) (Formerly numbered Electrical Engineering M293.) (Same as Management M247.) Seminar, two hours; outside study, four hours. Introduction to intellectual property (IP) in context of technology products and markets. Topics include best practices to put in place before product development starts, how to protect high-value patent portfolio, patent licensing, offensive and defensive IP litigation considerations, trade secrets, opportunities and pitfalls of open source software, trademarks, managing copyright in increasingly complex content ecosystems, and adopting IP strategies to globalized marketplaces. Includes case studies inspired by complex IP questions facing technology companies today. S/U or letter grading.

285C. Academic Technical Writing for Electrical Engineers. (3) (Formerly numbered Electrical Engineering 285C.) Seminar, three hours. Designed for electrical engineering PhD students who have completed preliminary examinations. Students read models of good writing and learn to make rhetorical observations and writing decisions, improve their academic and technical writing skills by writing and revising conference and journal papers, and practice writing for and speaking to various audiences, including potential students, engineers outside their specific fields, and non-engineers (colleagues outside field, policymakers, etc.). Students write in variety of genres, all related to their professional development as electrical engineers. Emphasis on writing as vital way to communicate precise technical and professional information in distinct contexts, directly resulting in specific outcomes. S/U grading.

296. Seminar: Research Topics in Electrical Engineering. (2) (Formerly numbered Electrical Engineering 296.) Seminar, two hours; outside study, four hours. Advanced study and analysis of current topics in electrical engineering. Discussion of current research and literature in research specialty of faculty member teaching course. May be repeated for credit. S/U grading.

297. Seminar Series: Electrical Engineering. (1) (Formerly numbered Electrical Engineering 297.) Seminar, 90 minutes; outside study, 90 minutes. Limited to graduate electrical engineering students. Weekly seminars and discussion by invited speakers on research topics of heightened interest. S/U grading.

298. Seminar: Engineering. (2 to 4) (Formerly numbered Electrical Engineering 298.) Seminar, to be arranged. Limited to graduate electrical engineering students. Seminars may be organized in advanced technical fields. If appropriate, field trips may be arranged. May be repeated with topic change. S/U or letter grading.

299. MS Project Seminar. (4) (Formerly numbered Electrical Engineering 299.) Seminar, to be arranged. Required of all MS students not in thesis option. Supervision and active guidance under responsible faculty mentor. Regular meetings, culminating report, and presentation required. Individual contract required; enrollment petitions available in Office of Graduate Student Affairs. S/U grading.

375. Teaching Apprentice Practicum. (1 to 4) (Formerly numbered Electrical Engineering 375.) Seminar, to be arranged. Preparation: apprentice personnel employment as teaching assistant, associate, or fellow. Teaching apprentice shipunder active guidance and supervision of regular faculty member responsible for curriculum and instruction at UCLA. May be repeated for credit. S/U grading.

M495. Teaching Preparation Seminar: Teaching and Writing Pedagogies for Electrical Engineers. (2) (Formerly numbered Electrical Engineering M495.) (Same as English Composition M495K). Seminar, two hours. Required of all departmental teaching assistants (TAs). May be taken concurrently while holding a TA appointment. Seminar on pedagogy and logistics of being a TA with emphasis on student-centered teaching, clear communication, and multimodal teaching and learning. S/U grading.

596. Directed Individual or Tutorial Studies. (2 to 8) (Formerly numbered Electrical Engineering 596.) Tutorial, to be arranged. Limited to graduate electrical engineering students. Preparation forms to request enrollment may be obtained from assistant dean, Graduate Studies. Supervised instruction in advanced technical problem. S/U grading.

597A. Preparation for MS Comprehensive Examination. (2 to 12) (Formerly numbered Electrical Engineering 597A.) Tutorial, to be arranged. Limited to graduate electrical engineering students. Reading and preparation for MS comprehensive examination. S/U grading.

597B. Preparation for PhD Preliminary Examination. (2 to 16) (Formerly numbered Electrical Engineering 597B.) Tutorial, to be arranged. Limited to graduate electrical engineering students. S/U grading.

597C. Preparation for PhD Oral Qualifying Examination. (2 to 16) (Formerly numbered Electrical Engineering 597C.) Tutorial, to be arranged. Limited to graduate electrical engineering students. Preparation for oral qualifying examination, including preliminary research on dissertation. S/U grading.

598. Research for and Preparation of MS Thesis. (2 to 12) (Formerly numbered Electrical Engineering 598.) Tutorial, to be arranged. Limited to graduate electrical engineering students. Supervised independent research for MS candidates, including thesis proposal, S/U grading.

599. Research for and Preparation of PhD Dissertation. (2 to 16) (Formerly numbered Electrical Engineering 599.) Tutorial, to be arranged. Limited to graduate electrical engineering students. Usually taken after students have been advanced to candidacy. S/U grading.
2. Technology and Society. (2) Lecture, two hours; discussion, one hour; outside study, three hours. Analysis of broader societal opportunities, impacts, and challenges associated with technology. Drawing from historical and contemporary examples, consider- ation of society’s general direction, policy, and legacies spurred by rapid technological change. Development of perspectives to take broad, contextualized view of role of technology in society. Letter grading.

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating their research on first-year experience of college students, policies and resources used to obtain laboratory position. Exploration of opportunities and guidance on how to approach those openings. Offers students smooth transition into research laboratory. P/NP grading.

25. Communicating Undergraduate Research Results. (2) Seminar, two hours; outside study, four hours. Designed to engage engineering students in process of communicating formal research. Students learn about various methods and resources used to obtain publishing opportunities and guides for understanding technical presentations and writing. Offers templates and examples as guides for learning technical presentations and writing. Students work in teams to design, construct, and present posters. Students learn about various methods and resources used to obtain laboratory position. Exploration of opportunities and guidance on how to approach those openings. Offers students smooth transition into research laboratory. P/NP grading.

96C. Introduction to Engineering Design: Internet of Things. (2) Lecture, one hour; laboratory, one hour; outside study, four hours. Recommended for undergraduate Aerospace Engineering, Bioengineering, Computer Science, Electrical Engineering, and Mechanical Engineering majors. Introduction to engineering design while building teamwork and commun-ication skills and examination of engineering majors offered at UCLA and of engineering careers. Hands-on experience with state-of-art Internet of things (IoT) technology to offer students opportunity to rapidly de-velop innovative and inspiring systems that provide ideal introduction to computing systems and IoT ap-plications specific to their major field. IoT technology has become one of most important aspects of tech-nology history with applications ranging from wear-able devices for healthcare to residential monitoring systems, natural resource management, intelligent vehicles and transportation systems, robotics systems, and energy conservation. Comple-tion of hands-on engineering design projects, prepara-tion of short report describing projects, and presenta-tion of results. Letter grading.

96E. Introduction to Engineering Design: Electro-cardiogram. (2) Lecture, 90 minutes; laboratory, 90 minutes; outside study, three hours. Students learn about concepts and techniques in computer-aided design, finite element analysis, 3D printing, carbon fiber layup, and use concepts and techniques in electrical circuit design and analysis, cardiac electrophysiology, bio-physics, microcontrollers, and computer program-ming. Students work in teams to design, construct, test circuit boards carrying out experiment on human electrocardiograms by capturing data with microcon-troller, with computer analysis and display. Students present their designs orally and in writing. Letter grading.

99. Introduction to Engineering Design: Go-Karts. (2) Lecture, 90 minutes; laboratory, 90 minutes; out-side study, three hours. Students learn and use concepts and techniques in computer-aided design, finite element analysis, 3D printing, carbon fiber layup, telemetry, general mechanical design and assembly, and machine shop fabrication. Concepts applied to team-based design, construction, and testing of small 3D-printed rockets and larger, high-power rockets. Students present their designs orally and in writing, and evaluate their performance against other student teams. Rockets fired from Mojave Desert launch site in class field trip. No prior experience or coursework needed. Study led by experienced undergraduate members of Bruin Rocket Project. Meetings, and de-vice fabrication hands-on experience with state-of-art Internet of things (IoT) technology has become one of most important aspects of tech-nology history with applications ranging from wear-able devices for healthcare to residential monitoring systems, natural resource management, intelligent vehicles and transportation systems, robotics systems, and energy conservation. Comple-tion of hands-on engineering design projects, prepara-tion of short report describing projects, and presenta-tion of results. Letter grading.

M101. Principles of Nanoscience and Nanotech-nology. (4) (Same as Materials Science M105.) Lecture, four hours; discussion, one hour; outside study, seven hours. Enforced requisites: Chemistry 20A, 20B, Physics 1C. Introduction to underlying science en-
comprising structure, properties, and fabrication of technologically important nanoscale systems. New phenomena that emerge in very small systems (typically with feature sizes below few hundred nanometers) explained using basic concepts from physics and chemistry. Chemical, optical, and electronic properties, electron transport, structural stability, self-assembly, templated assembly and applications of various nanostructures such as quantum dots, nanoparticles, quantum wells and multilayers, carbon nanotubes. Letter grading.

102. Synthetic Biosystems and Nanosystems Design. (4) Lecture, four hours; outside study, eight hours. Introduction to current progress in engineering to integrate biosciences and nanosciences into synthetic systems, where biological components are reengineered and rewired to perform desirable functions in both intracellular and cell-free environments. Discussion of basic technologies and systems analysis that deal with dynamic behavior, noise, and uncertainties. Design projects in which students are challenged to design novel biosystems and nanosystems for nontrivial task required. Letter grading.

M103. Environmental Nanotechnology: Implications and Applications. (4) (Same as Civil Engineering Design 103) Lecture, four hours; discussion, one hour; outside study, six hours. Recommended requirement: course M101. Introduction to potential implications of nanotechnology to environmental systems as well as potential environmental and health impacts. Topics in environmental protection. Technical contents include three multidisciplinary areas: (1) physical, chemical, and biological properties of nanomaterials, (2) transport, removal, and fate of nanomaterials in natural environmental systems, and (3) use of nanotechnology for energy and water production, plus environmental protection, monitoring, and remediation. Letter grading.

110. Introduction to Technology Management and Economics for Engineers. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Fundamental principles of micro-level (individual, firm, and industry) and macro-level (government, international) economics as they relate to technology management. How individuals, firms, and governments impact successful commercialization of high technology products and services. Letter grading.

111. Introduction to Finance and Marketing for Engineers. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Critical components of finance, research, and practice as they impact management of technology commercialization. Internal (within firm) and external (in marketplace) marketing and financing of high-technology innovation. Concepts and strategies that allow entrepreneurs to count cash flow, internal rate of return, return on assets, return on equity, return on investment, interest rates, cost of capital, and product, price, positioning, and promotion. Use of market research, segmentation, and forecasting in management of technological innovation. Letter grading.

112. Laboratory to Market, Entrepreneurship for Engineers. (4) Lecture, four hours; discussion, one hour; outside study, eight hours. Critical components of entrepreneurship, finance, marketing, human resources, and accounting disciplines as they impact management of technology commercialization. Topics include strategy, management, marketing, building, building, market forecasting, and entrepreneurial financing. Students work in small teams studying technology management plans to bring new technologies to market. Students learn from a set of available technology concepts, many generated at UCLA, that are in need of plans for movement from laboratory to market. Letter grading.

113. Product Strategy. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Designed for juniors/seniors. Introduction to current management concept of product development. Topics include product strategy, product platform, and product strategy, product platform, and product development, vectors of differentiation, product pricing, first-to-market versus fast-follower; growth strategy, growth through acquisition, and new ventures; product portfolio management. Case studies, class projects, group discussions, and guest lecturers by speakers from industry. Letter grading.

116. Statistics for Management Decisions. (4) Lecture, four hours; outside study, eight hours. Management as well as engineering decisions nearly always take place in an uncertain and unpredictable environment. Probability provides mathematical framework for understanding how to make rational decisions when outcomes of actions are uncertain. Application of probability and statistics techniques to sample data, encompassing estimation, hypothesis testing, and regression analysis. Discussion of specific analytical techniques needed in later courses in program. Development of fundamental understanding of statistical analysis. Letter grading.

120. Entrepreneurship for Scientists and Engineers. (2) Seminar, two hours; outside study, four hours. Conceptualization of business opportunities and outline of basic requisites for viable business plans, followed by specific topics related to securing basic assets and resources needed to execute those plans. P/NP grading.

160. Entrepreneurship and Venture Initiation for Engineers. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Not open to students with credit for Management 163. Designed to deepen understanding of innovative and innovative processes related to creating new products. Inquiry into why, what, and how of making new products. New products are essential to any business (start-up or well-established) and thriving economies. Making successful new products requires various types of innovation. Availability of capital for innovative products has accelerated pace of these innovations. Letter grading.

163. Entrepreneurship and New Product Development for Engineers. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Limited to juniors/seniors. Not open to students with credit for Management 163. Designed to deepen understanding of innovative and innovative processes related to creating new products. Inquiry into why, what, and how of making new products. New products are essential to any business (start-up or well-established) and thriving economies. Making successful new products requires various types of innovation. Availability of capital for innovative products has accelerated pace of these innovations. Letter grading.

180. Engineering of Complex Systems. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Designed for engineering majors. Holistic view of engineering discipline, covering life cycle of engineering, processes, and technologies used in industry today. Multidisciplinary systems engineering perspective in which aspects of electrical, mechanical, material, and software engineering are incorporated. Three specific case studies in communication, sensor, and processing systems included to help students understand these concepts. Special attention paid to link material covered to engineering curriculum offered by UCLA to help students integrate and enhance their understanding of knowledge already acquired. Motivation of students to continue their learning and reinforce lifelong learning habits. Letter grading.

181EW. Ethics and Impact of Technology on Society. (4) Lecture, five hours; discussion, three hours; outside study, four hours. Required: English Composition 3. Not open for credit to students with credit for course 182EW, 183EW, or 185EW. Focuses on changing nature of technology and complex ethical issues that stem from it, such as biotechnology, information technology, nanotechnology, and energy technology. Discussion of nature of these issues; their ethical, legal, and social ramifications; and what society values in relation to these issues. Exploration of philosophy, religion, and natural and social sciences in relation to these issues. Emphasis on research and writing within engineering environments. Writing and revision of about 20 pages total, including two individual technical essays and one team-written research report. Readings address technical issues and writing form. Satisfies engineering writing requirement. Letter grading.

185EW. Art of Engineering Endeavors. (4) Lecture, four hours; discussion, three hours; outside study, five hours. Enforced requisites: English Composition 3 or 3E. Not open for credit to students with credit for course 185EW. Limited to sophomore/junior engineering students. Professional and ethical considerations in practice of engineering. Impact of technology on society and on moral and ethical values. Contemporary environmental, biological, legal, and other issues created by new technologies. Emphasis on research and writing within engineering environments. Teams about 20 pages total, including two individual technical essays and one team-written research report. Readings address technical issues and writing form. Satisfies engineering writing requirement. Letter grading.

188. Special Courses in Engineering. (4) Seminar, four hours; outside study, eight hours. Special topics in engineering for undergraduate students taught on experimental or temporary basis, such as those taught by resident and visiting faculty members. May be repeated for credit with topic or instructor change. Letter grading.

191. Seminar Series in Engineering Research. (1) Seminar, two hours; outside study, four hours. Principles and practical techniques for instruction of hands-on, project-based engineering design and outreach programs. Curriculum planning, project prepa-
Emergency procedures. Preparation of lessons and project for summer outreach program, with practice presentations. P/NP grading.

195. Internship Studies in Engineering. (2 to 4) Torial, two to four hours. Limited to juniors/seniors. Internship studies courses supervised by associate dean, or designated supervisor. Further supervision to be provided by organization for which students are doing internship. Students may be required to meet on regular basis with instructor and provide periodic reports of their experiences. May be taken for major credit or as elective credit. May be repeated for credit. Individual contract required; enrollment petitions available in Office of Academic and Student Affairs. Letter grading.

Graduate Courses

200. Program Management Principles for Engineers and Authors. (4) Lecture, four hours; outside study, eight hours. Designed for graduate students. Practical review of necessary processes and procedures to successfully manage technology programs. Reviews key elements of program planning—organizational structure, implementation, and performance tracking methods to provide program manager with necessary information to support decision-making processes. Preparation of high-quality products on time and within budget. Letter grading.

201. Systems Engineering. (4) Lecture, four hours; outside study, eight hours. Designed for graduate students. Practical review of major elements of system engineering including: creation of architecture, system requirements and flow down, product development cycle, functional analysis, system synthesis and trade studies, budget allocations, risk management, review and audit activities and documentation. Letter grading.

202. Reliability, Maintainability, and Supportability. (4) Lecture, four hours; outside study, eight hours. Requisite: course 201. Designed for graduate students with one to two years work experience. Integrated logistic support (ILS) is major driver of system life-cycle cost and one key element of system engineering and ownership—discipline critical to this function—reliability, maintainability, and supportability—and their relationships, taught using probability theory. Topics also include fault detections and isolation and down-selection. Discussion of 6-sigma method, one effective design and manufacturing methodology, to ensure system reliability, maintainability, and supportability. Letter grading.

203. System Architecture. (4) Lecture, four hours; outside study, eight hours. Requisite: course 201. Designed for graduate students with BS degrees in engineering or science and one to two years work experience in selected domain. Art and science of architecting. Introduction to architecting methodology—paradigm and tools. Principles of architecting through analysis of architecture designs of major existing systems. Discussion of selected elements of architectural practices, such as system modeling, design progression, and architecture frameworks. Examination of professionalization of system architecting. Letter grading.

204. Trusted Systems Engineering. (4) Lecture, four hours; outside study, eight hours. Trust is placed in information systems to behave properly, but cyber threats and breaches have become routine, including penetration of financial, medical, government, and national security of funds. Key to programs that can protect confidentiality, integrity, and availability involves more than composing systems from network security, computer security, data security, cryptography, computer systems, computer operations, and system components, and resulting system could still be vulnerable. Skills learned ensure that systems are architected, designed, implemented, tested, and operated for specific levels of trust. Examples and case studies to be taken from computer science, technology, and pharmaceutical industries. Letter grading.

213. Data and Business Analytics. (4) Lecture, four hours; outside study, eight hours. Coverage of wide variety of spreadsheet models that can be used to display parts of business as well as management decision making. Emphasis on mastery of Excel spreadsheet modeling as integral part of analytic decision making. Managerial models include data modeling, regression and forecasting, financial analysis in design of new products, integer programming, nonlinear programming, and Monte Carlo simulation. Problems from operations research and modeling taught by spreadsheet examples and described in managerial situations from various industries and disciplines. Development of spreadsheet models to facilitate decision making. Letter grading.

214. Management Communication. (4) Lecture, four hours. Exploration of knowledge, attributes, skills, and strategies necessary to succeed communicatively in workplace, with focus on business presentation skills, visual and verbal persuasion skills, and interpersonal communication skills. Letter grading.

215. Entrepreneurship for Engineers. (4) Lecture, four hours; outside study, eight hours. Limited to graduate engineering students. Topics in starting and developing high-tech enterprises for students who wish to complement their technical education with introduction to entrepreneurship. Letter grading.

216. Capstone Project. (4) Activity, 10 hours. Preparation: completion of minimum of four 200-level courses in online MS program. Project course that satisfies UCLA full comprehensive examination requirement of MS online degree in Engineering. Project is completed under individual guidance from UCLA Engineering faculty member and incorporates advanced knowledge learned in MS program of study. Letter grading.

375. Teaching Apprentice Practicum. (1 to 4) Seminar, to be arranged. Preparation: apprentice personnel employment as teaching assistant, associate, or fellow. Teaching apprenticeship under active guidance and supervision of regular faculty member responsible for curriculum and instruction at UCLA. May be repeated for credit. S/U grading.

470A-470D. Engineer in Technical Environment. (3 each) Lecture, three hours; outside study, six hours. Limited to Engineering Education minor for students. Theory and application of quantitative methods in analysis and synthesis of engineering systems for purpose of making management decisions. Optimization with respect to technical, economic, material, energy, information, and manpower. Case studies and individual projects. S/U or letter grading.

471A-471B. Engineer in Technical Environment. (3-4) Lecture, three hours; courses 471A, 471B and 90 minutes (course 471C). Limited to Engineering Executive Program students. Influences of human relations, laws, social sciences, humanities, and fine arts on development and utilization of natural and human resources. Interaction of technology and society past, present, and future. Change agents and resistance to change. S/U or letter (471A) grading; In Progress (471B) and S/U or letter (471C) grading.

472A-472D. Engineer in Business Environment. (3-3 to 3-5) Lecture, three hours (courses 472A, 472B, 472C) and 90 minutes (course 472D). Limited to Engineering Executive Program students. Language of business for engineering executive. Accounting, finance, business economics, business law, and marketing. Laboratory in organization and management problem solving. Analysis of actual business problems and situations, and their solutions. Close cooperation and participation with California business corporations and government agencies. In Progress (472A, 472C) and S/U or letter grading (credit to be earned on completion of course). Letter grading.

473A-473B. Analysis and Synthesis of Large-Scale System. (3-3) Lecture, two and one half hours; outside study, six hours. Limited to Engineering Executive Program students. Problem area of modern industry or government is selected as class project, and its
solution is synthesized using quantitative tools and methods. Project also serves as laboratory in organization for goal-oriented technical group. In Progress (473A) and S/U (473B) grading.

495A. Teaching Assistant Training Seminar. (4) Seminar, four hours; outside study, eight hours. Preparation, appointment as teaching assistant. Limited to graduate engineering students. Seminar on communication of engineering principles, concepts, and methods, preparation, organization of material, presentation, use of visual aids, grading, advising, and rapport with students. S/U grading.

M495L. Teaching Preparation Seminar: Writing for Engineers. (4) (Same as English Composition M495L) Seminar, one hour; outside study, five hours. Enforced requisite: course M495L. Required of all teaching assistants in their initial term of teaching Engineering writing course. Mentoring in group and individual meetings. Continued focus on composition pedagogy, assessment of student writing, guidance of revision process, and specialized writing problems that may occur in engineering writing contexts. Practical concerns of preparing students to write course assignments, marking and grading essays, and conducting peer reviews and conferences. S/U grading.

M495J. Supervised Teaching of Writing for Engineers. (4) (Same as English Composition M495J) Seminar, two and one half hours; outside study, nine hours. Limited to graduate students. Required of all teaching assistants for Engineering writing courses not exempt by appropriate departmental or program training. Training and mentoring, with focus on composition pedagogy, assessment of student writing, guidance of revision process, and specialized writing problems that may occur in engineering writing contexts. Practical concerns of preparing students to write course assignments, marking and grading essays, and conducting peer reviews and conferences. S/U grading.

ENGLISH
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Colleen J. Mauretche, PhD
Karen K. Kevorkian, PhD
Reed Wilson, PhD

Adjunct Associate Professor
Jeffrey L. Decker, PhD

Scope and Objectives
The Department of English is dedicated to the study of the literatures and cultures of those parts of the world in which English is a primary language. Although committed to no single method or approach, the department requires a knowledge of British, American, and Anglophone literary history and an engagement with a range of methodological approaches that foster intellectual curiosity and critical thinking and encourage its students to be not only expert readers and writers but engaged and ethical citizens.

An understanding and appreciation of literature can furnish lifelong rewards. In addition to offering students such personal benefits, the department seeks to foster critical analysis and lucid writing and to teach them to think about how language and representation function in the world. Such skills are essential to success in a variety of professions for which the major in English can provide excellent preparation, including law, administration, business, teaching, media, and entertainment.

Within the BA degree in English, qualified students may elect a concentration in creative writing. The department also offers a Bachelor of Arts degree in American Literature and Culture. When selecting courses to fulfill requirements for the majors, students are expected to choose those that best reflect their own interests and simultaneously contribute toward a coherent program in literary studies.

A graduate program leading to the Master of Arts degree is available for students who wish to continue the study of literature at an advanced level. A parallel program continues to the PhD degree. Because the PhD program may require five years or more, it is intended only for qualified students who are seriously committed to advanced literary scholarship and, in some cases, to a career in college or university teaching.

Undergraduate Study
Students must have completed the Entry-Level Writing requirement before taking any courses in English (other than English Composition 1 or 2). For more information regarding Entry-Level Writing, see the Undergraduate Study chapter.

The English major and American Literature and Culture major are designated capstone majors. Students in both majors have the option of completing
a capstone seminar or other culminating work that enables them to use knowledge and skills acquired through previous coursework to engage, under the guidance of a faculty member, in literary research or other creative projects that result in a final paper or other product.

**Extra-Departmental Requirement in Foreign Literature or Foreign Language**

All English majors must have completed either (1) level five or equivalent in any one foreign language or (2) level three or equivalent in one foreign language and two additional courses in foreign language or foreign literature, including foreign literature in translation (see course listings under *Foreign Literature in Translation*). Transfer students who have satisfied the College of Letters and Science foreign language requirement at the high-school level through the IGETC program may satisfy the departmental requirement with five foreign literature in translation courses. The courses may be taken on a P/NP grading basis.

**English BA**

**Capstone Program**

The Bachelor of Arts degree in English has an optional concentration in creative writing for students who have been admitted to and completed three creative writing workshops in a single genre of either poetry or short story. Students are expected to meet with the undergraduate counselors and undergraduate faculty adviser to plan and follow a course of study that incorporates their interests and goals with the fulfillment of requirements for the degree.

**Learning Outcomes**

The English major has the following learning outcomes:

- Proficiency in a broad knowledge/skill set including research methods, critical thinking, and analytical writing
- Familiarity with basic project material including data from multiple sources
- Familiarity with relevant scholarly and current debates in the field
- Conception and execution of an independent project
- Demonstrated seminar or workshop skills
- Demonstrated oral and written communication skills
- Demonstrated defense-of-scholarship skills

**Preparation for the Major**

Required: English Composition 3, English 4W or 4HW or 4WS taken in the stated sequence (English Composition 3 is requisite to any English 4 course), 11, 87. A grade of C or better is required in each course.

**Transfer Students**

Transfer applicants to the American Literature and Culture major with 90 or more units must complete the following introductory courses prior to admission to UCLA: one English composition course, one English critical reading and writing course, one year of English literature survey courses, and two years of one foreign language or a combination of foreign language and foreign literature courses.

Refer to the [UCLA transfer admission guide](#) for up-to-date information regarding transfer selection for admission.

### American Literature and Culture BA

#### Capstone Program

Students are expected to meet with the undergraduate counselors and undergraduate faculty adviser to plan and follow a course of study that incorporates their interests and goals with the fulfillment of requirements for the degree.

#### Learning Outcomes

The American Literature and Culture major has the following learning outcomes:

- Proficiency in a broad knowledge/skill set including research methods, critical thinking, and analytical writing
- Familiarity with basic project material including data from multiple sources
- Familiarity with relevant scholarly and current debates in the field
- Conception and execution of an independent project
- Demonstrated seminar or workshop skills
- Demonstrated oral and written communication skills
- Demonstrated defense-of-scholarship skills

#### Preparation for the Major

Required: English Composition 3, English 4W or 4HW or 4WS taken in the stated sequence (English Composition 3 is requisite to any English 4 course), 11, 87. A grade of C or better is required in each course.

#### Transfer Students

Transfer applicants to the American Literature and Culture major with 90 or more units must complete the following introductory courses prior to admission to UCLA: one English composition course, one English critical reading and writing course, one year of English literature survey courses, and two years of one foreign language or a combination of foreign language and foreign literature courses.

Refer to the [UCLA transfer admission guide](#) for up-to-date information regarding transfer selection for admission.

### The Major

Required: Ten 4- or 5-unit upper-division courses, including (1) seven American literature English courses, at least two in the time period before 1848 and two in the time period after 1848, selected from the following three areas with a minimum of two selected from each area: (a) origins—beginnings, events, and trajectories: studying the making of America in its myriad beginnings and manifestations—courses 100, M102A, M104A, 166A, 166B, 167A, 167B, 170A, or, when treating American topics, M101B, 106, 123, 131, 139, 169, (b) identities: places, communities, and environments: studying people, collectives and movements across the diverse geographies of the Americas—courses 100, M102A, M102B, M104A through M104E, M105A through M105E, 106, 115A, 117, 135, 168, 170B, 170C, 172C, 173A, 173B, 173C, 174A, 174B, 174C, 175, 176, 177,

**Honors Program**

**Admission**

The honors program is open to departmental majors with a 3.5 departmental and a 3.25 overall grade-point average (GPA). Students with lower GPAs may petition for admission to the program, but these grade-point averages must be achieved before graduation in order to qualify for honors. Students should apply by winter quarter of the junior year.

For application forms and more information, contact the departmental counselor.

**Requirements**

All honors students are required to take one theory course from English 120 through 128 (may fulfill one of three required breadth courses) no later than winter quarter of the junior year. Students in the creative writing concentration are required to have completed or been accepted into their third workshop in a single genre prior to or concurrent with enrollment in course 191H. In spring quarter of the junior year, students must take course 191H (may fulfill one of two electives for the major). During fall and winter quarters of the senior year, they take courses 198A and 198B, in which they write a thesis under the direction of a faculty member (198B may fulfill the second of two electives for the major). The thesis determines whether they receive highest honors, honors, or no honors.

**English Minor**

The English minor is designed for students who wish to enhance their major program with the benefits of intensive study of English language and literatures, including a better understanding and appreciation of literatures in English and improvement in critical thinking, reading, and writing skills.

To enter the minor, students must have an overall grade-point average of 2.0 or better, have completed English 10A with a grade of C or better, and have satisfied the English Composition 3 requirement and completed English 4W, 4WH, 4W, or any Writing II course with a grade of C or better. Students must file a petition to declare the minor by meeting with a student affairs officer in the Undergraduate Counseling Office, 158/160 Kaplan Hall, 310-825-1389. For more information, see the **minor website**.

**Required Lower-Division Courses**

- **English Minor**
  - **10A**
  - **10B**
  - **10C**

**Required Lower-Division Courses (10 units):** English 10B and 10C, with grades of C or better.

**Required Upper-Division Courses (25 units):**

- Five courses selected from English 100 through 191E, including one course in literatures in English written before 1700 (see course lists 1a and 1b under English BA, the major, above) and one other course in literatures in English written before 1850 (see course lists 1a, 1b, and 1c under English BA, the major, above).

A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor. At least 15 upper-division units applied toward the minor must be taken in residence during the regular academic year (excluding summer sessions) at UCLA. Transfer credit is subject to department approval; consult with the undergraduate counselors before enrolling in any courses for the minor.

Each minor course must be taken for a letter grade, and students must have an overall grade-point average of 2.0 or better in the minor. Successful completion of the minor is indicated on the transcript and diploma.

**Literature and Environment Minor**

The Literature and Environment minor provides students with both a solid foundation for literary interpretation and a superstructure that integrates those skills and perspectives with the questions about the past, present, and future of the biosphere. It is designed for undergraduate students who wish to enhance their major program with intensive study of literature in its relationship to the natural environment, while improving their skills in reading, writing, creative and critical thinking, and analysis of complex situations in an ethical frame. The minor examines how different cultural forms (for example, fiction, journalism, poetry, film, design, and other arts) represent environmental issues, including biodiversity, animal studies, wilderness, food, urban ecologies, postcolonial ecologies, environmental justice, and climate change.

To enter the minor, students must be in good academic standing with an overall grade-point average of 2.0 or better and have completed English 4W, 4WH, 4W, or any Writing II course with a grade of C or better. Students must file a petition to declare the minor by meeting with a student affairs officer in the Undergraduate Counseling Office, 158/160 Kaplan Hall, 310-825-1389. For more information, see the **minor website**.

**Required Lower-Division Courses**

- **10A**
- **10B**
- **10C**

**Required Upper-Division Courses (20 to 24 units):**

1. **(English 118E and M118F) or one additional 118E course on a different topic or one other English course that has a primary focus on environmental issues to be selected from a list available in the Undergraduate Counseling Office prior to the opening of enrollment each term (students may petition to substitute other courses),**
2. **(one course selected from American Indian Studies C178, Anthropology C133, 136, Art History C133, C145A, Chicanas and Chicano Studies M144, M183, Food Studies M170SL, Geography C130, 136, Honors Collegium C141, 174, Italian C124, Public Policy C115, Russian C122, Urban Planning M120, 121, or C119, **(one course selected from Atmospheric and Oceanic Sciences M105, 106, Earth, Planetary, and Space Sciences 101, Ecology and Evolutionary Biology 116, M131, M134, M176, Environment M115, M125, M126, M131, M133, M134, M150, M153, M157, C159, M161, M163, M164, M166, M167, or Environment Health Sciences 100, (one course selected from English 184, 195CE, 197, 198A, 198B, or 199 that culminates in a project focused primarily on literature from an eccocritical or other environmentally focused perspective.**

Students may petition to substitute an internship course/independent study/directed research course (195CE, 197, 198A, or 199) for an elective course as long as it is clearly and predominantly relevant to the topics covered in the minor and falls within the discipline of the requirement for which it serves as a substitute. No more than one upper-division independent study/directed research course (4 or 5 units) may be applied toward the minor.

A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor.

Each minor course must be taken for a letter grade, and students must have an overall grade-point average of 2.0 or better in the minor. Successful completion of the minor is indicated on the transcript and diploma.

**Professional Writing Minor**

The **Professional Writing minor** includes the study and practice of originating, designing, and communicating information and ideas. As a discipline, it is the core for creating, debating, and disseminating knowledge in the 21st-century multicultural economy. The minor enables students to expand their knowledge of the practices of writing in a diverse modern society.

Through courses that understand writing broadly—as encompassing written, oral, visual, and electronic multimodal communication—students in the Professional Writing minor acquire deep intellectual and practical skills needed to perform well as good writers within the professions they choose, or to become professional writers with specific areas of academic expertise. All Writing Programs courses in the minor include a segment on digital media.

To enter the minor, students must have an overall grade-point average of 2.0 or better, have satisfied the Writing II requirement, and submit a 500-word essay online explaining why they want to declare the minor, and how they expect it to relate to their professional lives. For more information, contact the Writing Programs adviser, 146 Kaplan Hall, 310-206-1145.

**Required Lower-Division Courses**

- **5 units:** Any Writing II course or equivalent.

**Required Upper-Division Courses**

1. **26-30 units:** One core course from English Composition 130A through 130E; two courses selected from English 110A, 110C, 110E, 110P, 110V, M119P (or Comparative Literature M119P), M192 (or English Composition M192 or Environment M192), English Composition 131A, 131C, 131D, 132, 134, 136, 137, or English M138 (or English Composition M138) when offered on a non-fiction topic; one course selected from African American Studies M194A (or Education M194A), Planning M120, 121, or C119,
Asian American Studies C142A, C142C, C142H, Community Engagement and Social Change 165SL, Communication 109, 110, Digital Humanities 150, Ecology and Evolutionary Biology C179, Education 118, Film, Television, and Digital Media C144, Honors Collegium 1018, 101C, Life Sciences 110, 192A, Music Industry 102, 104A, 110, 122, Dance C184; one additional upper-division course selected from the lists above; and one capstone, cumulative portfolio, independent study, or community and corporate internship course from English 195CE, 197, 199, English Composition 195, or 199.

A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor.

No more than one lower-division course may be applied to the minor. Students may petition to substitute courses other than those listed to satisfy elective requirements.

Each minor course must be taken for a letter grade (unless the course is graded only on a P/NP basis; no more than 4 units of P/NP may be applied to the minor), and students must have an overall grade-point average of 2.0 or better in the minor. Successful completion of the minor is indicated on the transcript and diploma.

Graduate Study

Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Division website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Graduate Degrees

The Department of English offers Master of Arts (MA), Candidate in Philosophy (CPhil), and Doctor of Philosophy (PhD) degrees in English.

English

Lower-Division Courses

4HW. Critical Reading and Writing (Honors). (5) Lecture, four hours. Enforced requisite: English Composition 3 or 3H or English as a Second Language 36. Introduction to literary analysis, with close reading and carefully written exposition of selections from principal modes of literature: poetry, prose fiction, and drama. Minimum of 15 to 20 pages of revised writing. Satisfies Writing II requirement. Letter grading.

4W. Critical Reading and Writing. (5) Lecture, four hours. Enforced requisite: English Composition 3 or 3H or English as a Second Language 36. Introduction to literary analysis, with close reading and carefully written exposition of selections from principal modes of literature: poetry, prose fiction, and drama. Minimum of 15 to 20 pages of revised writing. Satisfies Writing II requirement. Letter grading.

4WS, Critical Reading and Writing (Service Learning). (5) Lecture, four hours; fieldwork, two hours. Enforced requisite: English Composition 3 or 3H or English as a Second Language 36. Introduction to literary analysis, with close reading and carefully written exposition of selections from principal modes of literature: poetry, prose fiction, and drama. Minimum of 15 to 20 pages of revised writing. Service learning component includes meaningful work with off-campus agency selected by instructor. Satisfies Writing II requirement. Letter grading.

10A. Literatures in English to 1700. (5) Lecture, three hours; discussion, one hour. Enforced requisites: English Composition 3 or 3H, English 4W or 4HW. Survey of major works with emphasis on tools for literary analysis such as close reading, argumentation, historical and social context, and critical writing. Minimum of three papers (three to five pages each) or equivalent required. P/NP or letter grading.

10B. Literatures in English, 1700 to 1850. (5) Lecture, three hours; discussion, one hour. Enforced requisites: English Composition 3 or 3H, English 4W or 4HW. Survey of major writers and genres, with emphasis on tools for literary analysis such as close reading, argumentation, historical and social context, and critical writing. Minimum of three papers (three to five pages each) or equivalent required. P/NP or letter grading.

10C. Literatures in English, 1850 to Present. (5) Lecture, three hours; discussion, one hour. Enforced requisites: English Composition 3 or 3H, English 4W or 4HW. Survey of major writers and genres, with emphasis on tools for literary analysis such as close reading, argumentation, historical and social context, and critical writing. Minimum of three papers (three to five pages each) or equivalent required. P/NP or letter grading.

11. Introduction to American Cultures. (5) Lecture, four hours; discussion, one hour (when scheduled). Requisites: English Composition 3, English 4W or 4HW or 4W/WS. Exploration of question of what is meant by America, and hence what is meant by American culture and American studies. Addresses concepts of origins (real or imagined beginnings of cultural formation), identities (narratives of people and places), and media (creative process as manifest in aesthetic forms, artistic movements, and information systems). P/NP or letter grading.

19. Fiat Lux Freshman Seminars. (1) Seminar: one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

20. Introduction to Creative Writing. (4) Lecture, four hours; discussion, one hour (when scheduled). Preparation: submission of creative or expository writing samples to screening committee. Enforced requisite: satisfaction of Entry-Level Writing requirement. Enforced requisites: English Composition 3. Not open for credit to students with credit for course 20W. Designed to introduce fundamentals of creative writing. Emphasis either on poetry, fiction, drama, or creative nonfiction depending on wishes of instructor(s) during any given term. Readings from assigned texts and weekly writing assignments required. P/NP or letter grading.

20W. Introduction to Creative Writing. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: satisfaction of Entry-Level Writing requirement, English Composition 3. Not open for credit to students with credit for course 20. Designed to introduce fundamentals of creative writing and writing workshop experience. Emphasis on poetry, fiction, drama, or creative nonfiction depending on wishes of instructor(s) during any given term. Readings from assigned texts, weekly writing assignments (multiple drafts and revisions), and final portfolio required. Satisfies Writing II requirement. Letter grading.

M30. Environmental Literature and Culture. (5) (Same as Environment M30SL.) Lecture, three hours; discussion, one hour. Enforced requisite: satisfaction of Entry-Level Writing requirement. Introduction to core themes, questions, and methods within interdisciplinary field of environmental humanities. Examination of how different culture forms (e.g., fiction, journalism, poetry, visual art) represent environmental issues. May include bioethics, food, urban ecologies, postcolonial ecologies, environmental justice, and climate change. Service learning component includes meaningful work with off-campus agency/ agencies selected by instructor. P/NP or letter grading.

M40. Structure of English Words. (5) (Same as Linguistics M10.) Lecture, four hours, discussion. One hour. Introduction to structure of English words of classical origin, including most common base forms and rules by which alternate forms are derived. Students may expect to achieve substantial enrichment of their vocabulary while learning about etymology, semantic change, and abstract rules of English word formation. P/NP or letter grading.

M50. Introduction to Visual Culture. (5) (Same as Film and Television M50.) Lecture, three hours; discussion, one hour. Laboratory, one hour. Enforced requisite: satisfaction of Entry-Level Writing requirement. Study of how visual media, including advertising, still and moving images, and narrative films, influence contemporary aesthetics, politics, and knowledge. P/NP or letter grading.

70. Medievalism: Medieval Literature and Contemporary Culture. (5) Lecture, four hours; discussion, one hour. Enforced requisite: satisfaction of Entry-Level Writing requirement. Introduction to medieval (in form of crusade, quest, romance, world-construction, etc.) is continually reproduced and transformed in large scale popular productions, novels, film, and television. Textual focus on medieval works in comparison to analysis of 20th- and 21st-century works may include Beowulf, Sir Gawain and the Green Knight, Le Morte Darthur, Lord of the Rings, Game of Thrones, and Harry Potter. P/NP or letter grading.

80. Major American Authors. (5) Lecture, three hours; discussion, one hour. Enforced requisite: satisfaction of Entry-Level Writing requirement. Not open for credit to English majors or students with credit for any course in the 140 series. Introduction to medieval texts juxtaposed with modern texts and media to analyze how and why the medieval (in form of crusade, quest, romance, world-construction, etc.) is continually reproduced and transformed in large scale popular productions, novels, film, and television. Textual focus on medieval works in comparison to analysis of 20th- and 21st-century works may include Beowulf, Sir Gawain and the Green Knight, Le Morte Darthur, Lord of the Rings, Game of Thrones, and Harry Potter. P/NP or letter grading.

85. American Novel. (5) Lecture, three hours; discussion, one hour. Enforced requisite: satisfaction of Entry-Level Writing requirement. Not open for credit to English majors or students with credit for any courses in 170 series. Development, with emphasis on form, of American novel from its beginning to present day. Includes works of such novelists as Hawthorne, Fitzgerald, Faulkner, Ellison, and Morrison. P/NP or letter grading.

87. Topics in American Cultures. (5) Seminar, three hours. Requisites: English Composition 3, English 4W or 4HW or 4WS. 11. Content varies. Introductory study of diverse peoples, histories, and ideas of America. P/NP or letter grading.

88A-88Z. Lower-Division Seminars: Special Topics in English. (5 each) Seminar, three hours. Limited to 20 students. Content varies. Students may petition for counselor for information. P/NP or letter grading. 88A, Medieval Literature; 88B, Renaissance Literature; 88C, 17th-Century Literature; 88D, 18th-Century Literature; 88E, Romantic Literature; 88F, Victorian Literature; 88G, 19th-Century British Literature; 88H, Colonial American Literature; 88I, 19th-Century American Literature; 88J, 20th-Century American Literature; 88K, History of English Language; 88L, Folklore and Mythology; 88M, Literature and Society; 88SL, Service Learning Seminar, three hours; fieldwork, three hours. Textual analysis, analytical discussion, and written as
alignments about works of literature that raise issues relevant to contemporary society. Service learning component includes minimum of 20 hours service with agency involved in issues of public advocacy and social justice.

98. Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to lower-division lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be repeated for credit to honor eligible students. Honors content noted on transcript. P/NP or letter grading.

98HC. Honors Contracts. (1) Tutorial, three hours. Limited to 10 students. Designed as adjunct to lower-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for credit to maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

99. Shakespeare. (5) Lecture, three hours; discussion, one hour. Enforced requisite: satisfaction of Entry-Level Writing requirement. Not open for credit to English majors or students with credit for course 150A or 150B. Survey of Shakespeare's plays, including comedic and tragic plays, selected readings to present Shakespeare's breadth, artistic progress, and total dramatic achievement. P/NP or letter grading.

91A. Introduction to Poetry. (5) Lecture, three hours; discussion, one hour. Enforced requisite: satisfaction of Entry-Level Writing requirement. Recommended for instructional credential candidates. Study of critical issues (metrics, diction, figurative language, symbolism, irony and ambiguity; form and structure) and aesthetic issues, including evaluative criteria, followed by close critical analysis of selection of representative poems. P/NP or letter grading.

91B. Introduction to Drama. (5) Lecture, three hours; discussion, one hour. Enforced requisite: satisfaction of Entry-Level Writing requirement. Examination of representative plays; readings may range from Greek to modern drama. Emphasis on critical approaches to dramatic text; study of issues such as plot construction, characterization, special uses of language in drama, methods of evaluation. P/NP or letter grading.

91C. Introduction to Fiction. (5) Lecture, three hours; discussion, one hour. Enforced requisite: satisfaction of Entry-Level Writing requirement. Introduction to prose narrative, its techniques and forms. Analysis of short and long narratives and of critical issues such as plot, characterization, setting, narrative voice, realistic and nonrealistic effects. P/NP or letter grading.

91D. Introduction to Graphic Fiction. (5) Lecture, three hours; discussion, one hour (when scheduled). Requisite: satisfaction of Entry-Level Writing requirement. Introduction to interdisciplinary study of race and ethnicity, with primary focus on literature, through examination of institutions that form understanding of race—citizenship, nationalism, class, gender, and labor—interrogation of how we come to think of ourselves and others as having race, and effects. May be repeated for credit to maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

Upper-Division Courses

100. Ways of Reading Race. (5) Lecture, four hours; discussion, one hour (when scheduled). Requisite: English Composition 3. Introduction to interdisciplinary study of race and ethnicity, with critical focus on literature. Course content is dependent on the interests of the instructor, and attempts to integrate seminal theory with recent research on race and ethnicity, as well as to address issues of race and ethnicity in contemporary American society.

101A. Gender and Sexualities in Literature and Cultures. (5) Same as Gender Studies M105A and Lesbian, Gay, Bisexual, Transgender, and Queer Studies M101A.) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3 or 3H. Survey of women's and minority literatures from circa 1850 to 1970, with focus on authors such as Sara Teasdale, Edna St. Vincent Millay, Langston Hughes, and James Baldwin; may be repeated for credit with topic or instructor change. P/NP or letter grading.

101B. Queer Literatures and Cultures, 1850 to 1970. (5) Same as Gender Studies M105B and Lesbian, Gay, Bisexual, Transgender, and Queer Studies M101B.) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3 or 3H. Survey of discrete period of queer literature and culture from circa 1850 to 1970, with focus on works by authors such as Walt Whitman, Radclyffe Hall, Gertrude Stein, Virginia Woolf, Langston Hughes, Tennessee Williams, Henry Blake Fuller, and James Baldwin. May be repeated for credit with topic or instructor change. P/NP or letter grading.

101C. Queer Literatures and Cultures after 1970. (5) Same as Gender Studies M105C and Lesbian, Gay, Bisexual, Transgender, and Queer Studies M101C.) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3 or 3H. Survey of the period of queer literature and culture from 1970 to present, covering a range of genres, topics, and thematic perspectives. Topics may include introduction to disability studies; race, gender, and disability; disability narratives, and may be repeated for credit with topic or instructor change. P/NP or letter grading.

101D. African American Literature from Harlem Renaissance to 1960s. (5) Same as African American Studies M104B.) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3 or 3H. Survey of African American literature from New Negro Movement of post-World War I period to 1960s, including oral materials (ballads, blues, speeches) and fictional, dramatic, and essayistic works by such authors as James Weldon Johnson, Claude McKay, Langston Hughes, Nella Larsen, Zora Neale Hurston, Richard Wright, Arna Bontemps, Ralph Ellison, and Ernest Gaines. P/NP or letter grading.

101E. African American Literature from 1960s to 1990s. (5) Same as African American Studies M104C.) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3 or 3H. Survey of the period of African American literature from late 1950s to 1970s. Topics may include rise of Black Arts Movement of 1960s and its influence of black literature, and may also include introduction to films from early 1970s, with focus on authors such as Lorraine Hansberry, Amiri Baraka, Nikki Giovanni, Alice Walker, Toni Morrison, Ishmael Reed, Audre Lorde, Pauline Marshall, and Ernest Gaines. P/NP or letter grading.

102. Contemporary African American Literature. (5) Same as African American Studies M104D.) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3 or 3H. Survey of contemporary African American literature from 1980s to present covering a range of genres, with emphasis on diversity of perspectives and styles that have emerged over past 30 years or so. Authors may include Toni Morrison, August Wilson, Octavia Butler, Anna Deavere Smith, June Jordan, Charles Johnson, and Rita Dove. P/NP or letter grading.

104E. Topics in African American Literature and Culture. (5) Same as African American Studies M104E.) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3 or 3H. Variable topics lecture course that provides opportunity to cover African American literature from wide range of theoretical, historical, and thematic perspectives. Topics may include African American autobiography, 20th-century African American literature and film, black diaspora literature, postmodern African American fiction, Afro-Futurism, and African American satire. May be repeated for credit with topic or instructor change. P/NP or letter grading.

105A. Early Chicana/Chicano Literature, 1400 to 1800. (5) Same as Chicana and Chicano Studies M105A.) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3 or 3H. Survey of Chicana/Chicana literature from its emergence on drift of Triple Alliance, through conquest of Mexican Revolution (1910), including oral and written forms (poetry, corridos, testimonios, folklore, novels, short stories, and drama) by writers such as Juana María Chávez, María Amparo Ruiz de Burton, Eusebio Chacón, Daniel Venegas, and Lorena Villegas de Magón. P/NP or letter grading.
M105B. Chicana/Chicano Literature from Mexican Revolution to el Movimiento, 1920 to 1970s. (5) (Same as Chicana and Chicano Studies M105B.) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3 or 3H. Survey of Chicana/Chicano literature from 1920s through Great Depression and World War II, ending with Chicana/Chicano civil rights movement. Oral and written narratives by writers including Conrado Espinoza, Jo-vita González, Angelina Arreola, Mario Sáez, Oscar Acosta, and Evangelina Vigil. P/ NP or letter grading.

M105C. Chicana/Chicano Literature since el Movimiento, 1970s to Today. (5) (Same as Chicana and Chicano Studies M105C.) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3 or 3H. Survey of Chicana/Chicano literature since 1970s, with particular emphasis on how queer and feminist activism as well as Central and South American migration have shaped 21st-century chicana/o. Oral, written, and graphic fiction, poetry, and drama by writers including John Rechy, Gloria Anzaldúa, as Bros Hernández, Castillo, and Dagoberto Gilb guide exploration of queer and feminist studies, Reagan generation, immigration debates, and emerging Latino/Latina majority. P/NP or letter grading.

M105D. Introduction to Latino/Latina Literature. (5) (Same as Chicana and Chicano Studies M105D.) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3 or 3H. Survey of U.S. Latino/Latina literature and introduction to its major critical trends, with emphasis on groups of Caribbean, Mexican, South American, and Central American origin. Representative works read in relation to such topics as relationship between Latina/ Latino populations and U.S. cultural sphere, struggle for self-determination, experiences of exile and migration, borders and language and their impact on cultural production. P/NP or letter grading.

M105E. Studies in Chicana/Chicano and/or Latino/Latina Literature. (5) (Same as Chicana and Chicano Studies M105E) Seminar, three or four hours; laboratory, three or four hours. Enforced requisite: English Composition 3 or 3H. Specialized studies in Chicana/Chicano and/or Latino/Latina literature. In-depth study of various topics related to Chicano/Latino communities in Southern California, including Chicana/Chicana visions of Los Angeles; immigration, migration, and exile; autobiography and historical change; Chicana/Chicano journalism; and labor and literature. Service learning component includes minimum of 20 hours of meaningful work with agency involved with Chicana/Chicana and/or Latino/Latina community and selected by instructor with instructor consent. P/NP or letter grading.

106. Studies in Native American and Indigenous Literatures. (6) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3 or 3H. Study of Native American and/or transnational and indigenous communities from 1900s through 1970s. Topics may include oral traditions and histories, decolonization and sovereignty, identity and place in comparative perspectives, and multiple genres and sub-genres such as novel, poetry, drama, visual arts, dance, song, and film. May be repeated for credit with topic or instructor change. P/NP or letter grading.

107A. Studies in Women's Writing. (5) (Same as Gender Studies M107A.) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3. Focus on women writers that may include historical, regional, national, or thematic emphasis, with possible topics such as authorship, self-writings, sexuality, gender, and genre. May be repeated for credit with topic or instructor change. P/NP or letter grading.

107B. Studies in Gender and Sexuality. (5) (Same as Gender Studies M107B and Lesbian, Gay, Bisexual, Transgender, and Queer Studies M107B.) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3. Examination of literary and cultural production through lenses of gender and sexuality. Depending on instructor, emphasis may be national, comparative, or thematic and include other intersectional vectors of identity and representation such as race and ethnicity. May be repeated for credit with topic or instructor change. P/NP or letter grading.

108. Intercultural Encounters. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3 or 3H. Study of literary, cultural, and/or cinematic texts produced by people from different ethnic and religious backgrounds and providing comparative cultural perspectives on living in multietnic societies. May be repeated for credit with topic or instructor change. P/NP or letter grading.

109. Topics in Race, Ethnicity, Gender, and Sexualiy Studies. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3 or 3H. Consult Schedule of Classes for specific offerings. P/NP or letter grading.

110A. Writing in English Major: Analytical. (5) Lecture, four hours; discussion, one hour (when scheduled). Requisites: course 4W (or 4HW or 4WS). English Composition 3 or 3H. Enforced requisite: course 4W. Improvement and refinement of writing about literature. Focus on writing as process, rewriting, and argument; minimum 15 to 20 pages of writing required. May not be repeated for credit. P/NP or letter grading.

110B. Writing in English Major: Adjunct. (2) Seminar, two hours. Students must be concurrently enrolled in affiliated English lecture course (consult Schedule of Classes for courses so designated). Improvement and refinement of writing about literature. Focus on working with students enrolled in base American Literature and Culture and English majors. P/NP or letter grading.

110C. Public Readers, Public Writers: Writing about Books for 21st-Century Audience. (5) Lecture, four hours; discussion, one hour (when scheduled). Requisites: course 4W (or 4HW or 4WS), English Composition 3 or 3H. In-depth study and practice of literary and cultural criticism for general audience. Focus on writing as process, rewriting, and argument; minimum 15 to 20 pages of writing required. May not be repeated for credit. P/NP or letter grading.

111. Celtic Mythology. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3 or 3H. Literary study of canonical New Testament and other Christian texts (deuterocanonical, apocryphal, gnostic, etc.), with emphasis on literary devices and narrative structures in relation to Judeo-Christian historical, political, philosophical, and theological themes. P/NP or letter grading.

111C. Topics in Biblical Literature. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3 or 3H. Consult Schedule of Classes for specific topics. P/NP or letter grading.

112B. Celtic Mythology. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3 or 3H. Survey of early texts, myths pertaining to Celtic countries, and their stories, with emphasis on techniques of mythological analysis. P/NP or letter grading.

112C. Survey of Medieval Celtic Literature. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3 or 3H. Knowledge of Irish or Welsh not required. General course dealing with Celtic literature from earliest times to 14th century. P/NP or letter grading.

113A. History of English Language. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3 or 3H. Study of English language from Indo-European time to present. P/NP or letter grading.

113B. Christian Biblical Texts in Translation. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3 or 3H. Literary study of Hebrew Bible (Old Testament), with emphasis on literary devices and narrative structures in relation to Judic historical, political, philosophical, and theological themes. P/NP or letter grading.

113C. Topics in Biblical Literature. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3 or 3H. Consult Schedule of Classes for specific topics. P/NP or letter grading.

114A. Oral Tradition. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3 or 3H. Study of myth, dramatic performance, oral epic, folktales, and ballads. P/NP or letter grading.

114B. Celtic Folklore. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3 or 3H. Folkloric traditions of modern Ireland, Scotland, and other Celtic countries, with attention to colonial and postcolonial issues and folkloristic methods. P/NP or letter grading.

112F. Food and Fantasy in Irish Tradition and Literature. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3 or 3H. Enforced requisite: English Composition 3 or 3H. Folkloric traditions of modern Ireland, Scotland, and other Celtic countries, with attention to colonial and postcolonial issues and folkloristic methods. P/NP or letter grading.

113A. History of English Language. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3 or 3H. Study directed toward English majors of main features in grammatical, lexical, and phonetic condition of English language from Indo-European time to present. P/NP or letter grading.
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113B. Introduction to Structure of Present-Day English. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3 or 3H. Introduction to techniques of linguistic description as applied to pronunciation, grammar, and vocabulary. May be repeated for credit with topic or instructor change. P/NP or letter grading.

114. Lyric Histories. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3 or 3H. Exploration of lyric poetry in English across centuries. Topics may include historical conceptions of aesthetic forms, changing conceptions of dramatic personae, matter of literary influence, and complex relationship of individual lyric speaker to society and historical contexts. May be repeated for credit with topic or instructor change. P/NP or letter grading.

115A. American Popular Literature. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3 or 3H. Exploration of how in- neration of such popular styles and genres as sentimental literature, sensation fiction, dime novels, crime stories, pornography, science fiction, supernatural tales, Hollywood novels, and other kinds of mass liter- ary expression. P/NP or letter grading.

115B. British Popular Literature. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3 or 3H. Read- ings in literatures of mass culture from 16th-century broadsides to contemporary novels. Examination of social and cultural aspects of literature. P/NP or letter grading.

115C. Literature for Children and Adolescents. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3 or 3H. Study of children's literature, folkore and oral tradition, criticism, illustration, and bibliography and analysis and evaluation of literature intended mainly for students in junior and senior high schools. P/NP or letter grading.

115E. Science Fiction. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3 or 3H. Study of science fiction and speculative literatures. P/NP or letter grading.

115SL. Community-Based Studies of Popular Liter- ature. (5) (Same as Community Engagement and Social Change M110SL.) Lecture, four hours; discussion, one hour (when scheduled); fieldwork, two hours. Enforced requisite: English Composition 3. Service learning course that examines history and development of one or more genres of popular literature, with attention to contemporary communities of readers and writers. May be repeated for credit. P/NP or letter grading. May include children's literature and childhood liter- ary, mass market fiction and book club culture, or science fiction and science policy. Service learning component includes meaningful work with local non-profit organizations selected in advance by instructor. May be repeated for credit with topic change. P/NP or letter grading.

116A. Experimental Fiction. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3 or 3H. Study of novels and short stories that employ playful or experimental practices in language, narrative, hybridity (genre, me- dium), typography, and other material aspects of text such as binding and book design. Focus generally on texts from 20th century and later, but can include readings dating to beginning of novel. May be repeated for credit with topic or instructor change. P/NP or letter grading.

116B. Introduction to Electronic Literature. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3 or 3H. Overview of literatures involving digital tech- nology, such as hypertext fiction, interactive fiction, animated and integrated poetry, multimedia works, video game narrative, and works employing network protocols and print-based works influenced by digital culture. Basic introduction to new media theory. P/NP or letter grading.

117. Literature of California and American West. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3 or 3H. Study of literature dealing with explo- ration, settlement, and emergent cultural awareness of Western U.S. P/NP or letter grading.

118A. Interdisciplinary Studies in Literature. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3 or 3H. Study of literatures in English in relation to other disciplines such as sciences, history, politics, philos- ophy, music, film, dance, architecture. Topics may include not only English literature but foreign literature in translation. May be repeated for credit with topic or instructor change. P/NP or letter grading.

118C. Studies in Visual Culture. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3 or 3H. Study of visual images (photography, film, video) and their relation to literary and/or popular culture. Topics may include adaptation, visual analysis, and word and image, culture and visual culture. May be repeated for credit with topic or instructor change. P/NP or letter grading.

118E. Literature and Environment. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3. Study of liter- ature from environmental perspectives, including eco- critical and interdisciplinary consideration of issues such as environmental justice, animal studies, food studies, gender studies, urban and postcolonial ecolo- gies, climate change, cultural biophelia and biophobia, and relationship of literature to sciences. May be re- peated for credit with topic or instructor change. P/NP or letter grading.

119. Literary Cities. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3 or 3H. Exploration of place of literary imagination in making of cities, with focus on questions of cultural exchange, development, migra- tion, urban rebellion, and style. Topics may include meaning of urban space and time, city as urban village or cosmopolitan hub, segregated dystopia or post- modern future, and impact of exile, tourism, and mi- gration in making of cities. Service learning component includes meaningful work with local non-profit organizations selected in advance by instructor. May be repeated for credit with topic or instructor change. P/NP or letter grading.

119SL. Literary Cities—Service Learning. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3 or 3H. Exploration of place of literary imagination in making of cities, with focus on questions of cultural exchange, development, migration, urban rebellion, and style. Topics may include meaning of urban space and time, city as urban village or cosmopolitan hub, segregated dystopia or postmodern fu- ture, and impact of exile, tourism, and migration in making of cities. Service learning component includes meaningful work with local non-profit organizations selected in advance by instructor. May be repeated for credit with topic or instructor change. P/NP or letter grading.

120. History of Aesthetics and Critical Theory. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: courses 10A, 10B. Inv- estigation of texts and ideas in history of aesthetics, critical theory, and interpretation from Greeks through 18th century. Readings may include Plato, Aristotle, Longinus, Biblical hermeneutics, Hume, Descartes, Kant, Schiller, and Hegel. May not be re- peated for credit. P/NP or letter grading.

121. Modern and Contemporary Aesthetics and Critical Theory. (5) Lecture, four hours; discussion, one hour (when scheduled). Requisites: courses 10A and 10B, or 11 and 87. Investigation of some domi- nant trends in 19th- and 20th-century aesthetics, crit- ical theory, and interpretation. Topics may include Marxism, psychoanalysis, structuralism, poststructuralism, feminism, and postcolonialism. May not be re- peated for credit. P/NP or letter grading.

122. Keywords in Theory. (5) Lecture, four hours; discussion, one hour (when scheduled). Requisites: courses 10A, 10B, and 10C, or 11 and 87. Recommended: courses 120, 121. Taking its model from Richard Williams' classic volume, this course provides an overview of fundamental theoretical concepts, or keywords, that have emerged from a variety of intellectual disciplines to shape literary and cultural studies. Consideration will be given to each of such keywords; how they alter and enrich assumptions about textuality, readers, and authorship; and how they engender interpretive paradigms and methodolog- ies for study of literature and culture. May be re- peated for credit with topic or instructor change. P/NP or letter grading.

123. Theories of Religion. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: courses 10A, 10B, and 10C, or 11 and 87. Recommended: courses 120, 121. Exploration of theories of history and history of religion that offer productive approaches to literary texts. Investigation of how historians negotiate interpretations of concepts of history and situated historical narratives, how histori- es are constructed, trope, and given authority, how histories constitute past and present in relationship to each other to stabilize tradition or induce change, and complex ways that literary texts operate within and on their historical contexts. May be repeated for credit with topic or instructor change. P/NP or letter grading.

124. Theories of Religion. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: courses 10A, 10B, and 10C, or 11 and 87. Recommended: courses 120, 121. Examination of relation- ships between literary and/or religious traditions. Topics may include legacies of monotheisms, theories of sacrifice, sacrament, gift, and mystical tra- ditions, as well as history of allegory and theological applications to reading. May be repeated for credit with topic or instructor change. P/NP or letter grading.

125. Violence in Cultural Theory and Literature. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3 or 3H. Recommended: courses 120, 121. Examination of literary and/or philosophical works and psychological texts that theorize causes, effects, political justifi- cations, cultural sublimations, and literary uses and critiques of violence. P/NP or letter grading.

M126. Feminist and Queer Theory. (5) (Same as Gender Studies M126 and Lesbian, Gay, Bisexual, Transgender, and Queer Studies M126.) Lecture, four hours; discussion, one hour (when scheduled). En- forced requisite: English Composition 3. Recommen- dation: one course from 120, 121, Gender Studies 102, 103, or 104. Investigation of key concepts and debates in study of gender, sexuality, and kinship, with focus on their interrelated significance for making of cultural meanings to be interpreted in gender studies. Texts may place emphasis on impact of changing ideas of gender and sexuality in specific historical cultures. May be re- peated for credit with topic or instructor change. P/NP or letter grading.

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127. Performance, Media, and Cultural Theory. (3) Lecture, four hours; discussion, one hour (when scheduled). Requisites: courses 10A, 10B, and 10C, or 11 and 87. Recommended: courses 120, 121. Examination of concepts and modes of performance, culture, and media, and their intersear. Evaluation of different modes of inquiry around one or more of these concepts, as well as their intersection, in various intellectual traditions, including fields of cultural studies, postcolonial studies, literary analysis, and film theory. May be repeated for credit with topic or instructor change. P/NP or letter grading.

128. Postcolonial and Transnational Theory. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B, 10C. Recommended: courses 130, 131. Exploration of methodological, aesthetic, and theoretical implications of postcolonial and transnational approaches to study of literature and culture. Topics may include theories of subaltern, orientalist, feminist, and/or indigenous representation and histories and may address representational issues of national sovereignty in wake of globalization and neocolonialism. May be repeated for credit with topic or instructor change. P/NP or letter grading.

129. Topics in Genre Studies, Interdisciplinary Studies, and Creative Writing. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B, 10C. Recommended: courses 120, 121. Consult Schedule of Classes for author, period, and genre specialty. Studies a specific literary term. Depending on instructor, emphasis may be historical, regional, national, comparative, or thematic. May be repeated for credit with topic or instructor change. P/NP or letter grading.

130. Introduction to Postcolonial Literatures. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B, 10C. Introduction to major themes and issues in postcolonial literatures and cultural expression, with specific emphasis on regional or literary traditions; topics may include literatures of Africa and African diaspora, environment and empire, Caribbean contact zones, or literatures of indigenous Pacific. May be repeated for credit with topic or instructor change. P/NP or letter grading.

131. Studies in Postcolonial Literatures. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B, 10C, or 11 and 87. Exploration of relationship between culture and imperialism through lenses of literary texts to raise questions about what study of empire tells about relationship between power and knowledge. Discussion of shifting patterns and paradigms of imperial rule, including both metropolitan and peripheral or colonial spaces. May be repeated for credit with topic or instructor change. P/NP or letter grading.

132. Culture and Imperialism. (5) Lecture, four hours; discussion, one hour (when scheduled). Requisites: courses 10A, 10B, and 10C. Strongly recommended: course 130. Survey of how colonialism and decolonization have shaped literary and cultural expression, with specific emphasis on regional or literary traditions; topics may include literatures of Africa and African diaspora, environment and empire, Caribbean contact zones, or literatures of indigenous Pacific. May be repeated for credit with topic or instructor change. P/NP or letter grading.

133. Transatlantic Literatures and Cultures. (5) Lecture, four hours; discussion, one hour (when scheduled). Requisites: courses 10A, 10B, and 10C, or 11 and 87. Study of literatures of Atlantic to examine cultural, political, and ideological issues that followed from transatlantic movement of people, ideas, commodities, and cultural artifacts. In addition to literatures of Britain and U.S., coverage may include texts from Africa, Caribbean, Mexico, South America, Spain, and other parts of Europe. May be repeated for credit with topic or instructor change. P/NP or letter grading.

134. Nationalism and Transnationalism. (5) Lecture, four hours; discussion, one hour (when scheduled). Requisites: courses 10A, 10B, and 10C, or 11 and 87. Examination of how critical frameworks of nation and migration, transnationalism and globalization, and traditional and modern themes of literary texts, particularly relationship between literature and national identity. Other topics may include nation building in relationship to regional identities as well as discussion of colonial texts, migration, resettlement, and exile and foundational narratives of nation in relationship to representations of mobility. Genres may include epic, romance, travel novel, and auto-biography. May be repeated for credit with topic or instructor change. P/NP or letter grading.

135. Literature of Americas. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B, 10C. Introduction to major themes and issues in literatures of the Americas, with emphasis on complex ways in which letters of North America, Central America, South America, and Caribbean forge distinctly American perspectives on global affairs. Focuses literature from encounter to 19th-century U.S. American revolution and Latin American independence movements and beyond, considering such topics as empire, colonialism, slavery, travel, and cross-cultural transformations among indigenous, European, and African civilizations. May be repeated for credit with topic or instructor change. P/NP or letter grading.

136. Creative Writing: Poetry. (5) Seminar, three or four hours; discussion, one hour (when scheduled). English Composition 3 or 3H, English 4W or 4HW. Weekly exercises in writing of poetry, with practice in standard forms and meters and study of techniques. Classroom discussion based on student work, and emphasis on one section per term not permitted. May be repeated for maximum of 15 units. No more than 10 units may be completed with same instructor. P/NP or letter grading.

137. Creative Writing: Short Story. (5) Seminar, three or four hours; discussion, one hour (when scheduled). English Composition 3 or 3H, English 4W or 4HW. Three average-length stories to be completed each term. Some stories may, with instructor's consent, be substantial revisions of other stories presented. Classroom discussion based on stories presented. Enrollment in more than one section per term not permitted. May be repeated for maximum of 15 units. No more than 10 units may be completed with same instructor. P/NP or letter grading.

M138. Topics in Creative Writing. (Formerly numbered 138.) (Same as English Composition M138) Seminar, four hours; discussion, one hour (when scheduled). English Composition 3 or 3D or 3DS or 3SL. Introductory workshop in genre(s) of instructor's choice, that may include mixed genres, playwriting, screenwriting, literary nonfiction, or other forms. May be repeated for credit with topic or term not permitted. May be repeated for maximum of 10 units. May not be used to satisfy workshop requirements for English creative writing concentration. P/NP or letter grading.

139. Individual Authors. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B, 10C, or 11 and 87. Exploration of relationship between culture and imperialism through lenses of literary texts to raise questions about what study of empire tells about relationship between power and knowledge. Discussion of shifting patterns and paradigms of imperial rule, including both metropolitan and peripheral or colonial spaces. May be repeated for credit with topic or instructor change. P/NP or letter grading.

140. Chaucer: Canterbury Tales. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B. Reading and historical explication of major writers of medieval British (e.g., Gawain-poet, Langland, Gower, Margery Kempe). May be repeated for credit with topic or instructor change. P/NP or letter grading.

141. Drama to 1576. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B. English drama from its Latin and Anglo-Norman roots to opening of first public playhouse. P/NP or letter grading.

142. Medieval Romance and Literatures of Court. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B. Reading and historical explication of major writers of later medieval Britain (e.g., Gawain-poet, Langland, Gower, Margery Kempe). May be repeated for credit with topic or instructor change. P/NP or letter grading.

143. Medieval Romance and Literatures of Court. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B. Reading and historical explication of major writers of later medieval Britain (e.g., Gawain-poet, Langland, Gower, Margery Kempe). May be repeated for credit with topic or instructor change. P/NP or letter grading.

144. Nationalism and Transnationalism. (5) Lecture, four hours; discussion, one hour (when scheduled). Requisites: courses 10A, 10B, and 10C, or 11 and 87. Exploration of how critical frameworks of nation and migration, transnationalism and globalization, and traditional and modern themes of literary texts, particularly relationship between literature and national identity. Other topics may include nation building in relationship to regional identities as well as discussion of colonial texts, migration, resettlement, and exile and foundational narratives of nation in relationship to representations of mobility. Genres may include epic, romance, travel novel, and auto-biography. May be repeated for credit with topic or instructor change. P/NP or letter grading.

145. Medieval Literatures of Devotion and Dissent. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B. Exploration of devotional genres and their complex relationships with traditions of dissent in medieval English culture, encompassing hagiography, vision, conversion narrative, interreligious debate, heresy trials, and Lollard manifestos and translations. Texts may include Dream of Rood, South English Legendary, Ancrene Wisse, Piers Plowman, Lollard writings, macro-poems, historiatedcycles, Wakefield cycle, Julian of Norwich, Book of Margery Kempe. May be repeated for credit with topic or instructor change. P/NP or letter grading.

146. Medieval Story Cycles and Cultures. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B. Exploration of medieval story cycles and story collections as narrative forms. Medieval story cycles engage in complex literary conventions; cycle narratives of nobility, governance, love, loyalty, and power in medieval court culture, encompassing hagiography, conversion narrative, interreligious debate, heresy trials, and Lollard manifestos and translations. Texts may include Dream of Rood, South English Legendary, Ancrene Wisse, Piers Plowman, Lollard writings, macro-poems, historiatedcycles, Wakefield cycle, Julian of Norwich, Book of Margery Kempe. May be repeated for credit with topic or instructor change. P/NP or letter grading.
as texts gathered as Matter of British, Matter of Rome, or Matter of France; also Mabinogi, manuscript collections such as Auchinleck manuscript or Exeter book, framed narratives such as Decameron, Canterbury Tales, One Thousand and One Nights, and Gower’s Confessions of experience, exempla, or collections framed narratives such as Auchinleck manuscript or Exeter book, framed narratives such as Decameron, Canterbury Tales, One Thousand and One Nights, and Gower’s Confessions of experience, exempla, or collections of exempla, legendaric ode, mock-epic, and verse-epistle, questions of authorship and context, including Latin, Old English, Welsh, Irish, Anglo-Norman French, and Middle English. Multilingual ubiquity of history writing points to pressures of history on history writing—histories are always shaped by political, cultural, linguistic, and textual pressures of present tense. Texts may include histories, chronicles, material records, and historiographically engaged texts. May be repeated for credit with topic or instructor change. P/NP or letter grading.

145. Medieval Histories, Chronicles, and Records. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B. In- vestigation of medieval history writing as literary tradition. Medieval histories survive in every language of medieval Europe, including Latin, Old English, Welsh, Irish, Anglo-Norman French, and Middle English. Multilingual ubiquity of history writing points to pressures of history on history writing—histories are always shaped by political, cultural, linguistic, and textual pressures of present tense. Texts may include histories, chronicles, material records, and historiographically engaged texts. May be repeated for credit with topic or instructor change. P/NP or letter grading.

146. Cultures of Middle Ages. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B. Interdisciplinary survey of particular medieval societies, with special emphasis on textual and visual representations of persons and practices in different ethnic and cultural traditions of world material. Examination of processes of intercultural encounter and transmission: classical or pietistic traditions into mediev al culture, cross-pollination of literature, and cross-cultural contact zones, including interactions between Celtic, Anglo, and Norman societies, and debates between Pagans, Jews, Christians, and Muslims. May be repeated for credit with topic or instructor change. P/NP or letter grading.

149. Medievalisms. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B. Exploration of postmedieval production of medievalism in or about the period for scholarly study, tactical premodern other to modern and contemporary, and commodity continually reinvented by postmedieval writers, artists, and popular media. Topics may include 19th-century production of medi eval studies and its links to nationalism, notable medie valists and their work, and uses of Middle Ages in popular culture from Umberto Eco to Tolkien, Robin Hood, Arthur, and Merlin. May be repeated for credit with topic or instructor change. P/NP or letter grading.

150A. Shakespeare: Poems and Early Plays. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B. Study of major works of English Renaissance literature and culture in relation to literatures of antiquity and continental Renaissance. Topics may include epic tradition, forebearers of novel, Renaissance humanisms, literature of love, monsters and marvels, representing nature. Ovidian transformations. May be repeated for credit with topic or instructor change. P/NP or letter grading.

150B. Shakespeare: Later Plays. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B. Intensive study of representative problem plays, major tragedies, Roman plays, and romances. P/NP or letter grading.

150C. Topics in Shakespeare. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B. Introduction to or advancement of student knowledge of Shakespeare’s works through broad or specific topics set by instructor. May be repeated for credit with topic or instructor change. P/NP or letter grading.

151. Milton. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B. Study of major works of Milton, with emphasis on Paradise Lost. P/NP or letter grading.

152. Literatures of English Renaissance and Early Modern Period. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B. Study of major works in their cultural context. May be repeated for credit with topic or instructor change. P/NP or letter grading.

153. Theatrical Renaissance: Early Modern Texts and Performances. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B. Topics may include professional and amateur performances in court, cities, churches, and countryside of varied sorts of texts—masques, religious drama, secular drama, charivari—alongside ex-
167A. American Poetry to 1900. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A and 10B, or 11 and 87. Study of American poetry from Puritan period through end of 19th century. P/NP or letter grading.

167B. American Fiction to 1900. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A and 10B, or 11 and 87. Study of American fiction (both novels and short stories) from its beginning to end of 19th century. P/NP or letter grading.

168. Major American Writers. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A and 10B, or 11 and 87. Study of American literature from beginning of 20th century to end of World War II. P/NP or letter grading.

170A. American Literature, 1865 to 1900. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A and 10B, or 11 and 87. Historical survey of American literature from Civil War to beginning of 20th century, including writers such as Howells, James, Twain, Norris, Dickinson, Crane, Chesnutt, Gilman, and others working in regional and naturalist fiction. P/NP or letter grading.

170B. American Literature, 1900 to 1945. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B, and 10C, or 11 and 87. Historical survey of American literature from turn of century to end of World War II. P/NP or letter grading.

170C. American Literature since 1945. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B, and 10C, or 11 and 87. Examination of primarily North American literature from World War II to present. P/NP or letter grading.

172. Drama, 1845 to Present. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B, and 10C. Study of drama in English, with its principal continental influences, since World War II. P/NP or letter grading.

172C. American Drama. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B, and 10C, or 11 and 87. Study of American drama from its beginning to present day. Historical period may vary with instructor. May be repeated for credit with topic or instructor change. P/NP or letter grading.

173A. American Poetry, 1900 to 1945. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B, and 10C, or 11 and 87. Study of American poetry from beginning of 20th century to end of World War II. P/NP or letter grading.

173B. American Poetry since 1945. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B, and 10C, or 11 and 87. Study of American poetry since end of World War II. P/NP or letter grading.

173C. Contemporary American Poetry. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B, and 10C, or 11 and 87. Study of American poetry, mostly by living authors, with emphasis on emergent issues and poetic forms. May be repeated for credit with topic or instructor change. P/NP or letter grading.

174A. American Fiction, 1900 to 1945. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B, and 10C, or 11 and 87. Study of American novels and short stories from beginning of 20th century to end of World War II. P/NP or letter grading.

174B. American Fiction since 1945. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B, and 10C, or 11 and 87. Study of American novels and short stories since end of World War II. P/NP or letter grading.

174C. Contemporary American Fiction. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B, and 10C, or 11 and 87. Study of American novels and short stories, mostly by living authors, with emphasis on emergent issues and aesthetics. May be repeated for credit with topic or instructor change. P/NP or letter grading.

175. American Nonfictional Prose. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B, and 10C, or 11 and 87. Study of American nonfictional prose (essays, autobiographies, travel narratives, and other). Particular genre and/or historical period may vary with instructor. May be repeated for credit with topic or instructor change. P/NP or letter grading.

176. Hemispheric American Literature. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B, and 10C, or 11 and 87. Examination of primarily North American literature from hemispheric rather than nation-based perspective. Historic breadth in study of American literature while posing such crucial theoretical issues as emergence of U.S. Empire in relationship between North America and global south, including Africa, Latin America, and Caribbean. May be repeated for credit with topic or instructor change. P/NP or letter grading.

177. Interdisciplinary Studies of American Culture. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B, and 10C, or 11 and 87. Interdisciplinary study of American literature in its relationships to other disciplines, including architecture, film, history, anthropology, and various social sciences, with emphasis on application of literary methodology to historical survey of American culture. May be repeated for credit with topic or instructor change. P/NP or letter grading.

179. Topics in Literature, circa 1850 to Present. (5) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: courses 10A, 10B, and 10C, or 11 and 87. Examination of literatures from or about this time period. May be repeated for credit with topic or instructor change. P/NP or letter grading.
179R. Topics in Literature, circa 1850 to Present: Historical Change; Chicana/Latina Journalism: Literary and Queer Politics. Seminar, two hours. Training and supervision in English / 401

180R. Junior Research Seminar. (Seminar, three hours. Enforced requisites: courses 10A, 10B, 10C, and 10D. Consult Schedule of Classes for author, period, genre, or subject to be studied in specific term. May be repeated for credit with topic or instructor change. P/NP or letter grading.

180T. Topics in Literature and Language. (Seminar, three or four hours. Enforced requisites: courses 10A, 10B, 10C, and 10D. Consult Schedule of Classes for author, period, genre, or subject to be studied in specific term. May be repeated for credit with topic or instructor change. P/NP or letter grading.

181A. Topics in Genre Studies. (Seminar, three or four hours. Requisites: courses 10A, 10B, and 10C, or 11 and 117. Consult Schedule of Classes for author, period, genre, or subject to be studied in specific term. May be repeated for credit with topic or instructor change. P/NP or letter grading.

181B. Topics in Interdisciplinary Studies. (Seminar, three or four hours. Enforced requisites: courses 10A, 10B, 10C, and 10D. Consult Schedule of Classes for author, period, genre, or subject to be studied in specific term. May be repeated for credit with topic or instructor change. P/NP or letter grading.

181C. Topics in Critical Theory. (Seminar, three or four hours. Enforced requisites: courses 10A, 10B, 10C. Consult Schedule of Classes for author, period, genre, or subject to be studied in specific term. May be repeated for credit with topic or instructor change. P/NP or letter grading.

181D. Topics in Imperial, Transnational, and Post-Colonial Studies. (Seminar, three or four hours. Enforced requisites: courses 10A, 10B, 10C. Consult Schedule of Classes for author, period, genre, or subject to be studied in specific term. May be repeated for credit with topic or instructor change. P/NP or letter grading.

182A. Topics in Medieval Literature. (Seminar, three or four hours. Enforced requisites: courses 10A, 10B, 10C. Consult Schedule of Classes for author, period, genre, or subject to be studied in specific term. May be repeated for credit with topic or instructor change. P/NP or letter grading.

182B. Topics in Renaissance and Early Modern Literature. (Seminar, three or four hours. Enforced requisites: courses 10A, 10B, 10C. Consult Schedule of Classes for author, period, genre, or subject to be studied in specific term. May be repeated for credit with topic or instructor change. P/NP or letter grading.

182C. Topics in 18th-Century Literature. (Seminar, three or four hours. Enforced requisites: courses 10A, 10B, 10C. Consult Schedule of Classes for author, period, genre, or subject to be studied in specific term. May be repeated for credit with topic or instructor change. P/NP or letter grading.

182D. Topics in 19th-Century Literature. (Seminar, three or four hours. Enforced requisites: courses 10A, 10B, 10C. Consult Schedule of Classes for author, period, genre, or subject to be studied in specific term. May be repeated for credit with topic or instructor change. P/NP or letter grading.

182E. Topics in 20th- and 21st-Century Literature. (Seminar, three or four hours. Enforced requisites: courses 10A, 10B, and 10C. Consult Schedule of Classes for author, period, genre, or subject to be studied in specific term. May be repeated for credit with topic or instructor change. P/NP or letter grading.

183A. Topics in Colonial American Literature. (Seminar, three or four hours. Requisites: courses 10A, 10B, and 10C. Consult Schedule of Classes for author, period, genre, or subject to be studied in specific term. May be repeated for credit with topic or instructor change. P/NP or letter grading.

183B. Topics in 19th-Century American Literature. (Seminar, three or four hours. Requisites: courses 10A, 10B, 10C, and 10D. Consult Schedule of Classes for author, period, genre, or subject to be studied in specific term. May be repeated for credit with topic or instructor change. P/NP or letter grading.

183C. Topics in 20th- and 21st-Century American Literature. (Seminar, three or four hours. Requisites: courses 10A, 10B, 10C, and 10D. Consult Schedule of Classes for author, period, genre, or subject to be studied in specific term. May be repeated for credit with topic or instructor change. P/NP or letter grading.

184. Capstone Seminar: English. (Seminar, three hours. Requisites: courses 10A, 10B, 10C, and 10D. Consult Schedule of Classes for author, period, genre, or subject to be studied in specific term. May be repeated for credit with topic or instructor change. P/NP or letter grading.

184A. Individual Studies for USIE Facilitators. (1) Tutorial, to be arranged. Enforced corequisite: Honors College M101P. Requisites: courses 10A, 10B, 10C. Individual study in regularly scheduled meetings with Honors student mentor to discuss selected USIE seminar topic, conduct preparatory research, and begin preparation of syllabus. Individual contract with faculty mentor required. May not be repeated. Letter grading.


185. Honors Research Colloquium in English. (Seminar, three hours. Limited to 20 students. Designated as adjunct to undergraduate lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be repeated for credit with topic or instructor change. P/NP or letter grading.

186H. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designated as adjunct to upper-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of three credits. Individual research Honors contract required. Honors content noted on transcript. Letter grading.

188A. Topics in Chicana/Latina and/or Latina/Latino Literature. (Seminary, three or four hours. Enforced requisites: courses 10A, 10B, 10C. Consult Schedule of Classes for author, period, genre, or subject to be studied in specific term. May be repeated for credit with topic or instructor change. P/NP or letter grading.

188B. Topics in 19th-Century American Literature. (Seminar, three or four hours. Requisites: courses 10A, 10B, 10C, and 10D. Consult Schedule of Classes for author, period, genre, or subject to be studied in specific term. May be repeated for credit with topic or instructor change. P/NP or letter grading.

189. Advanced Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designated as adjunct to undergraduate lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be repeated for credit with topic or instructor change. P/NP or letter grading.

189HC. Honors Contracts. (1) Tutorial, three hours. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor to finalize course syllabus. Individual contract with faculty mentor required. May not be repeated. Letter grading.

190H. Honors Research Colloquium in English. (1) Seminar, three hours. Limited to 20 students. Designated course: semesters 198A or 198B. Designed to bring together students under-taking supervised tutorial research for departmental honors in seminar setting with one or more faculty

191H. Honors Research Seminars: English. (5) Seminar, three hours. Requisites: semesters 198A or 198B. Honors content noted on transcript. Letter grading.

191P. Careers in Humanities. (5) (Same as Comparative Literature M191P) Seminar, three hours. Challenges misassumptions regarding humanities majors and their practical applications to life after graduation. Exploration of various humanities careers, with hands-on practice in crafting professional narrative. Guest lectures from UCLA professionals and alumni—all experts in career planning and local industry. Students encouraged to work with faculty to simultaneously build professional dossier—on paper or online—in preparation for life after UCLA with a humanities degree. P/NP or letter grading.

192. Undergraduate Practicum in English: Journals. (2) (Same as Comparative Literature M192 and Environment M192) Seminar, two hours. Training and supervised practicum for undergraduate student editors of campus journals supervised by faculty members in...

204. History of Rhetoric. (4) Lecture, four hours. Reading of basic texts in history of rhetoric and selections from standard commentaries. Survey of classical period and medieval-to-modern period in alternate years. S/U or letter grading.

205A. Shakespearean Drama: History and Methods. (4) Same as Scandinavian M271.) Seminar, three hours. Exploration of scholarly and literary attempts to study, define, analyze, promote, and/or appropriate oral traditions from the period to origins of vernacular literatures, European romantic (rediscovery of oral tradition, 20th-century heuristic models of oral composition, and modern-day electronic media and popular verbal genres, such as joking and rapping. S/U or letter grading.

205B. Collecting Oral Tradition. (4) Same as Scandinavian M272.) Seminar, three hours. Description and evaluation of various modern approaches to collecting and documenting oral tradition as text, performance, and sociocultural event. Consideration of approaches ranging from written transcription and textualization to audio and video presentation. S/U or letter grading.


211. Old English. (4) Lecture, four hours. Study of Old English grammar, lexic, phonology, and pronunciation to enable students to read literature silently and aloud. Reading of as much of more interesting Old English prose and poetry as can be read in one term. S/U or letter grading.

212. Middle English. (4) Lecture, four hours. Requisite: course 211. Detailed study of linguistic aspects of Middle English and of representative examples of better prose and poetry. S/U or letter grading.


215. Geography of Latin and Vernacular Manuscripts. (4 to 5) Seminar, four hours. Topics in medieval and early modern European literary history, the study of manuscripts and graphic resources, and the nature of the manuscript tradition. S/U or letter grading.


217A. Writing: Creative Writing. (2 to 4) Lecture, two to four hours. Preparation: submission of writing samples in specified genre (poetry, fiction, or drama). May be repeated but may not satisfy more than one of nine courses required for first qualifying examination nor any of five courses required for second qualifying examination. S/U or letter grading.

218. Study in Structure of Modern English. (4) Lecture, four hours. Topics in various aspects of structure of modern English, especially syntax and semantics. May be repeated for credit. S/U or letter grading.


221A. Criticism and Interpretation from Classical Era to Renaissance. (4) Lecture, three hours. Examination of major texts in history of critical theory and interpretation from pre-Socratics to Descartes, including classical literary criticism (Plato, Aristotle, Horace, Longin), biblical hermeneutics (Bible, Midrash, St. Paul, St. Augustine, St. Thomas Aquinas), and medieval and Renaissance theories of interpretation (Dante, Boccaccio, Sidney), S/U or letter grading.

221B. Aesthetics and Criticism from Enlightenment to Decadence. (4) Lecture, three hours. Continuation of course 221A, proceeding from neoclassical and Enlightenment critical theory through Victorian and decadent aesthetic and literary criticism. Readings may include texts by Taine, Poe, Burke, Hume, Kant, Schiller, the Schlegels, Coleridge, Hegel, Schelling, Arnold, Pater, Wilde, and Nietzsche. S/U or letter grading.

221C. Developments and Issues in Modern Critical Thought. (4) Seminar, three hours. Study of major figures and ideas in modern and contemporary critical theory. Readings vary from year to year but may include such figures as Freud, Derrida, Saussure, Heidegger, Lukacs, Benjamin, Adorno, Levi-Strauss, Lacan, Barthes, Derrida, Deleuze, Fanon, Foucault, Irigaray, Lyotard, Bourdieu, and Bhabha. S/ U or letter grading.


226. Language and Literature. (4) Seminar, three hours. Application of linguistic analysis. Individual seminars dealing with one historical period (medieval and Renaissance, neoclassical, or 19th century and modern), specific authors, or contributions of specific groups of linguists to literary analysis. S/U or letter grading.

227. Old and Medieval English Literature. (4) Seminar, four hours. Studies in poetry and prose of Old and medieval English literature; limits of investigation set by individual instructor. May be repeated for credit. S/U or letter grading.

228. New 18th-Century Literature. (4) Seminar, three hours. Studies in poetry and prose of 17th-century English literature up to Restoration; limits of investigation set by individual instructor. May be repeated for credit. S/U or letter grading.


230. Restoration and 18th-Century Literature. (4) Seminar, three hours. Studies in English poetry and prose, 1660 to 1800; limits of investigation set by individual instructor. May be repeated for credit. S/U or letter grading.

231. Romantic Writers. (4) Seminar, three hours. May be repeated for credit. S/U or letter grading.

232. Victorian Literature. (4) Lecture, three hours. Studies in English poetry and prose of Victorian period; limits of investigation set by individual instructor. May be repeated for credit. S/U or letter grading.

233. Contemporary British Literature. (4) Lecture, three hours. May be repeated for credit. S/U or letter grading.


235. Contemporary American Literature. (4) Lecture, three hours. Studies in contemporary American poetry and prose; limits of investigation set by individual instructor. May be repeated for credit. S/U or letter grading.

236. Studies in Drama. (4) Lecture, three hours. Studies in drama as genre from its beginning to present; limits of investigation set by individual instructor. May be repeated for credit. S/U or letter grading.
Scope and Objectives

The Entrepreneurship minor introduces undergraduate students to the field of entrepreneurship. A key element of entrepreneurship is the concept of opportunity recognition where individuals or teams pursue business concepts without regard to immediate access to resources utilizing lean start-up principles. Faculty members from applied fields in the professional schools and industry collaborate with faculty from academic disciplines across the campus to provide a critical framework for questioning and connecting topics related to entrepreneurship.

Through a carefully developed core curriculum and an integrative capstone experience, students in the minor obtain both breadth and depth in their understanding of the concepts, frameworks, and practical implications of entrepreneurship.

Undergraduate Study: Entrepreneurship Minor

To enter the Entrepreneurship minor, students must (1) have an overall grade-point average of 3.0 or better and (2) submit an application supporting their interest in pursuing the minor. Applications are accepted in fall, winter, and spring quarters. To help plan the course schedule and internship/field experience, students are expected to work closely with the academic adviser. Applications are available on the minor website.

Required Lower-Division Course (4 or 5 units): Communication 1 or any Writing II course.

Required Upper-Division Courses (24 or 25 units): Management 160, 161, 199 (4 units minimum), and three elective courses selected from Ancient Near East M105, Communication 109, 117, 133, 136, Dance C184, Digital Humanities 101, 150, Economics 106E, 173A, 173B, Environment 163, Ethnomusicology 105, Management 162, 163, 164, 167, Sociology 172. At least two of the three elective courses must be selected from the management courses listed above.

A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor.

Each minor course must be taken for a letter grade, and students must have an overall grade-point
average of 3.0 or better in the minor. Successful completion of the minor is indicated on the transcript and diploma.

ENVIRONMENT AND SUSTAINABILITY, INSTITUTE OF THE
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J.R. DeShazo, MSc, PhD
Rajit Gadh, PhD
Thomas W. Gillespie, PhD
Alexander D. Hall, PhD
Susanna B. Hecht, PhD
J.R. DeShazo, MSc, PhD
Rajit Gadh, PhD

Adjunct Professors
Mark A. Gold, DEnv
Susan S. Satterfield, PhD

Adjunct Associate Professors
Travis R. Longcore, PhD
Treven L. Fuller, PhD
Ryan J. Harrigan, PhD
Emily L. Lindsey, PhD
Kevin Y. Njao, PhD
Kristen C. Ruegg, PhD

Virginia M. Zunbcrecher, JD

Scope and Objectives
The mission of the UCLA Institute of the Environment and Sustainability (IoES) is to advance cross-disciplinary research, teaching, and public service on matters of critical importance to the planet and the campus community. The environment is defined broadly to include the interrelated issues of global climate change, loss of biological diversity, and threats to human health and well-being from the use and misuse of natural resources, applying all the tools of scientific and policy analysis as well as moral and aesthetic values to the work. The environment is a crucial component of sustainability, which is defined as the simultaneous consideration of environmental, economic, and social concerns. Los Angeles itself is a vital asset to this mission. As an international mega-city located in one of the world’s most biologically diverse regions, Los Angeles is a magnet for scholars from around the world who are facing similar issues of pollution, access to potable water, demand for energy, fragmentation of habitat, and the need to restore ecological function to sprawling urban settlements in a manner that supports economic growth and that is socially just and equitable.

The IoES offers creative, multidisciplinary academic programs and courses that address the full complexity of current environmental problems and sustainable solutions. The Bachelor of Science degree in Environmental Science is an innovative dual-component degree program for students seeking a challenging and invigorating science curriculum. The first component, the Environmental Science major, provides students with disciplinary breadth in several areas important to environmental science. The second component, a minor or concentration in one of seven environmental science areas, provides students with focused disciplinary depth in an area of their choosing. The minor in Environmental Systems and Society is designed for students who wish to gain a deeper understanding of the relationships between environmental science and associated social and political issues.

The IoES also sponsors Environment MIA, MIB, MICW and Clusters MIA, MIB, MICW titled Food: Lens for Environment and Sustainability. The cluster format is a series of three integrated freshman team-taught courses over the fall, winter, and spring quarters. The fall and winter quarter courses consist of lectures and discussions. The spring quarter consists of seminars and activities in which students explore specialized food-related environmental and sustainability topics such as sustainable agriculture, food culture and justice, and strategies for feeding the growing human population.

At the graduate level, the IoES offers two degree programs and a graduate certificate. The first program is the Environmental Science and Engineering (DEnv) professional doctorate program that was founded in 1973 by Nobel laureate Dr. Willard Libby, who perceived a need to train environmental scientists, engineers, and policymakers in a more interdisciplinary manner than is afforded by traditional PhD programs. The program is designed with an appropriate balance of breadth and specific skills, based on a strong master’s-level foundation in a science or engineering discipline. The curriculum consists of formal coursework across a full spectrum of relevant physical, biological, social, and engineering disciplines, as well as interdisciplinary research training and an off-campus residency where students complete their dissertation embedded in an agency, business, or non-profit organization. UCLA remains unique in the country in awarding the Doctor of Environmental Science and Engineering degree.

The second program is the Environment and Sustainability PhD program that was launched in 2018. The program equips students with diverse perspectives to develop profound new ideas, knowledge and answers to the most important concerns facing people and the planet. The program provides a deep understanding of how fundamental principles of environmental science and sustainability can be applied to research and address key environmental challenges that require skills in multiple disciplines—preparing students for a range of careers in academia, as well as public and private sectors. To promote interdisciplinary as the core of the program’s identity, each student’s program of study and dissertation research are guided by two advisors from distinct areas of research and scholarship.

The national award-winning Leaders in Sustainability graduate certificate program is free to UCLA graduate students pursuing degrees in any discipline. Companies, consumers, and governments across the world increasingly focus on making products, services, operations, and lives more sustainable. The certificate program gives students the tools to make that happen in a collaborative, action-oriented setting. By bringing together students and faculty from diverse academic fields, the program fosters cross-pollination for innovative ideas and solutions. Each graduate student takes a core sustainability class along with electives of their choos-
ing. Working with other students, faculty and professionals, students initiate a leadership project that measurably advances sustainability. For many, this project serves as a jumping-off point into their post-graduate careers and studies.

**Undergraduate Study**

The Environmental Science major is a designated capstone major. In collaboration with a local agency or nonprofit institution, students work individually and in groups to complete projects that require them to integrate many of the skills, principles, theories, and concepts they have learned throughout the curriculum and apply them to real systems. Students are expected to contribute meaningfully to the analysis and solution of particular environmental science issues involving multiple disciplines and stakeholders with different perspectives. Those completing the major should possess critical thinking skills, problem-solving abilities, and familiarity with essential computational, data collection, and analysis skills, as well as demonstrate effective oral and written communication skills. Graduates should also be able to identify key ethical issues and analyze the consequences of various professional dilemmas, as well as work productively as part of a team.

**Environmental Science BS Capstone Major**

The Environmental Science BS program represents strong collaboration between the Institute of the Environment and Sustainability and the departments of Atmospheric and Oceanic Sciences; Civil and Environmental Engineering; Earth, Planetary, and Space Sciences; Ecology and Evolutionary Biology; Environmental Health Sciences; and Geography. The program is designed for students who are deeply interested in the study of environmental science. There are two components to the program, and both must be completed to receive the degree. The first component, the Environmental Science major, requires completion of lower-division requirements grounded in basic natural sciences, a five-course upper-division environmental science requirement reflecting the disciplinary breadth of environmental science, three social sciences/humanities courses, participation in a sustainability-focused speaker series, and completion of an environmental science practicum. The second component is a minor or concentration in one of seven environmental science areas, each associated with a particular department. With assistance from IOES staff, students must formally apply to and be accepted by the associated department to receive the minor.

**Learning Outcomes**

The Environmental Science major has the following learning outcomes:

- Ability to apply theories or concepts from coursework to analysis of issues in the field
- Ability to make meaningful contribution to analysis and solution of particular issues involving multiple disciplines and stakeholders with different perspectives
- Critical thinking skills, problem-solving abilities, and familiarity with computational and data collection and analysis procedures essential to the field
- Ability to identify ethical issues raised by a particular issue
- Ability to analyze the consequences of various professional dilemmas
- Ability to work productively with others as part of a team
- Effective oral and written communication skills

**Preparation for the Major**

Required: Chemistry 14A, 14B, and 14BL (or 20A, 20B, and 20L), Environment 10, Geography 7, Life Sciences 7A, 7B, Mathematics 3A and 3B (or 31A and 31B, or Life Sciences 30A and 30B), Physics 5A and 5C (or 1A and 1B), Statistics 12 or 13 (or Life Sciences 40).

For the atmospheric and oceanic sciences minor, Chemistry and Biochemistry 14C (or 30A) or Mathematics 3C (or 32A) or Physics 1C (or 5B) is also required.

For the conservation biology minor, Chemistry and Biochemistry 14C (or 30A) or Life Sciences 7C and 23L is also required.

For the Earth and environmental science minor, Chemistry and Biochemistry 14C (or 30A) or Mathematics 3C (or 32A) or Physics 1C (or 5B), Earth, Planetary, and Space Sciences 1, and one course from 5, 13, 15, or 61 are also required.

For the environmental engineering minor, Mathematics 3C (or 32A) is also required.

For the environmental health concentration, Chemistry and Biochemistry 14C (or 30A) is also required.

For the environmental systems and society minor, one course from Chemistry and Biochemistry 14C (or 30A), Earth, Planetary, and Space Sciences 1, Life Sciences 7C (or 23L), Mathematics 3C (or 32A), and Physics 5B (or 1C) is also required.

For the geography/environmental studies minor, one course from Chemistry and Biochemistry 14C (or 30A), Earth, Planetary, and Space Sciences 1, Life Sciences 7C (or 23L), Mathematics 3C (or 32A), and Physics 5B (or 1C) plus Life Sciences 7C (and 23L), Mathematics 3C (or 32A), and Physics 5B (or 1C) is also required.

For the geography/environmental studies minor, one course from Chemistry and Biochemistry 14C (or 30A), Earth, Planetary, and Space Sciences 1, Life Sciences 7C (or 23L), Mathematics 3C (or 32A), and Physics 5B (or 1C) is required. Geography 5 and one course from 1, 2, 3, 4, or 6 are also required. Students should take these courses before enrolling in upper-division courses.

Each course applied toward requirements for preparation for the major must be passed with a grade of C– or better. Students receiving a grade below C– in two courses, either in separate courses or repetitions of the same course, are subject to dismissal from the major.

**Transfer Students**

Transfer applicants to the Environmental Science major with 90 or more units must complete as many of the following introductory courses as possible prior to admission to UCLA: two general chemistry courses with laboratory for majors, two general biology courses with laboratory for majors, two calculus courses, and two calculus-based physics courses.

Refer to the **UCLA transfer admission guide** for up-to-date information regarding transfer selection for admission.

**The Major**

The major consists of four requirements: physical and life science, social science and humanities, practicum/sustainability talks, and minor or concentration, as follows:

**Physical and Life Sciences Requirements**

Required: Environment 175 and four additional courses from the following physical and life sciences areas. No more than two courses may be from any one department. Atmospheric and Oceanic Sciences 101, 102, 103, 104, M105, 107, 112, 130, 141, Chemical Engineering C118, Civil Engineering 153, 154, M166, Earth, Planetary, and Space Sciences 101, C113, 119, 139, 150, 153, Ecology and Evolutionary Biology 100, 109, 116, M151A, 154, Environment 121, 157, Environmental Health Sciences 100, C125, C152D, C164, Geography 101, M102, M103, 107, 116, 117, M118, 120, M126, 133.

**Social Sciences and Humanities Requirements**


**Practicum/Sustainability Talks Requirements**

Required: Environment 180A, 180B, 180C, and two terms of 185A.

**Minor and Concentration Requirements**

A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor. Successful completion of a minor is indicated on the transcript and diploma.

For the atmospheric and oceanic sciences minor, seven 4-unit courses, including (1) three from Atmospheric and Oceanic Sciences M100, 101, 102, 103, 104, M105, M106, 107, C110, C115, M120, 130, 141, C144, 145, 150, 155, C160, C170, 180 and (2) four additional courses, two of which must be upper-division, from any of the above atmospheric and oceanic sciences courses beyond the minimum four required or from Atmospheric and Oceanic Sciences 1, 2, 3, 186 (must be taken twice), Chemistry and Biochemistry 103, 110A, 110B, 113A, C113B, 114, Earth, Planetary, and Space Sciences 15, Ecology and Evolutionary Biology 109, C119A, 122, 123A or 123B, 147, 148, Mathematics 115A, 115B, 123, 135, 136, 146, 170A, 170B, Physics 110A, 110B, 112, M122, 131, 132. Other relevant courses from related disciplines may be substituted with prior approval of the department. At least five courses approved for the minor must be upper-division. One course may be taken on a Passed/Not Passed basis.

For the conservation biology minor, Ecology and Evolutionary Biology 100, 116 (or Environment 121), and four to six courses from 100L, 101, 103, 105, 109, 109L, 111, 112, 114A, 114B, C119A, C119B, 122, M127, 129, M131, 142, 151A, 152, 153, 154, 155, 162, 162L, C174, 176,
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180A, 180B, any courses associated with the Field Biology Quarter or the Marine Biology Quarter or approved equivalent, Geography M103, 116, 117, M125, M126, 133 (a maximum of two Geography courses may be applied to the minor) are required.

For the Earth and environmental science minor, five courses from Earth, Planetary, and Space Science 101, 112, 159, 150, 153 are required.


For the environmental health concentration, Epidemiology 100, two courses from Environmental Health Sciences 100, C135, C153A, C153B, and three courses from Chemistry and Biochemistry 133A, Environmental Health Sciences C125, C140, C152D, C157, C164, 203 are required.

For the environmental systems and society minor, seven courses from Environmental M111, 121, M125, M126, M131, M133, 134, 150, M153, 157, C159, 160, M161, 162, 163, M164, 166, M167, 186 are required.

For the geography/environmental studies minor, three courses from Geography M102, M103, 109, M118, M125, M126, M127, 130, M133, 133, 136, 138, 139B, 139C, and any two additional upper-division geography courses (except those from the preceding list and courses 194 through 199) are required.

Each course applied toward requirements for the major, except Environmental 185A, must be taken for a letter grade. Students must maintain an overall grade-point average of 2.0 (C) or better in all courses applied toward the major.

Honors Program

The honors program provides exceptional students an opportunity for advanced research and study, under the guidance of a faculty member, that leads to the completion of an honors thesis or research project. To qualify for graduation with honors, students must (1) complete all requirements for the major, (2) have a cumulative grade-point average of 3.5 or better in upper-division coursework in the major and an overall GPA of 3.0 or better, (3) complete at least 8 units of Environmental 198 taken over at least two terms, and (4) produce a completed satisfactory honors thesis. The honors thesis or research project is in addition to the requirement of the completed practicum in environmental science project. Contact the student affairs officer for more information.

Environmental Systems and Society Minor

The Environmental Systems and Society minor is designed for students who wish to augment their major program of study with courses addressing the relationships between environmental science and associated social and political issues. The minor seeks to impart a deeper understanding of environmental systems related to air, land, and water resources, providing a basis for sound professional decision making.

To enter the minor, students must be in good academic standing (2.0 grade-point average) and file a petition at the Institute of the Environment and Sustainability, 300 La Kretz Hall, 310-206-9913.

Required Lower-Division Courses (8 units): At least two courses from Astronomy 3, Atmospheric and Oceanic Sciences 1, 2, 3, Earth, Planetary, and Space Sciences 1.15, 16, 20, Ecology and Evolutionary Biology 10, 13, 25, Environment M1A, M1B, 10, 12, 25, M30SL, Geography 1, 2, 5.

Required Upper-Division Courses (20 units): At least five courses from Environmental M111, M121, M125, M126, M131, M133, 134, 150, M153, 157, C159, 160, M161, 162, 163, M164, 166, M167, 186.

A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor, and at least 16 units applied toward the minor must be taken in residence at UCLA. Transfer or substitution of credit for any of the above is subject to institute approval; consult with an academic adviser at the institute before enrolling in any courses for the minor.

Each minor course must be taken for a letter grade, and students must have an overall grade-point average of 2.0 or better in the minor. Successful completion of the minor is indicated on the transcript and diploma.

Graduate Study

Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Division website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Graduate Degrees

The Institute of the Environment and Sustainability offers Master of Science (MS) and Doctor of Philosophy (PhD) degrees in Environment and Sustainability, and the Doctor of Environmental Science and Engineering (DEnv) degree.

Environment

Lower-Division Courses

M1A-M1B-M1CW, Food: Lens for Environment and Sustainability, 6-6-6 (Same as Clusters M1A-M1B-M1CW) Course M1A is enforced requisite to M1B, which is enforced requisite to M1CW. Limited to first-year freshmen. Letter grading. M1A-M1B. Lecture, three hours; discussion, two hours. Food as lens for local and global environmental and sustainability issues. Integration of environmental, social, economic, and technological solutions for food, fair, sustainable food production, healthy food, and climate change. Focus on local impacts of Earth's biophysical and agricultural systems, including how food production and consumption contributes to, and is impacted by, global problems, including climate change, pollution, and overpopulation. Laboratory exercises included in discussions. M1CW, Special Topics. Semesters three hours. Enforced requisite: course M1B. Examination of specialized environmental and sustainability topics as they relate to food, including air, water, biodiversity, climate change, food access, food security, and health. Satisfies Writing II requirement.

10. Introduction to Environmental Science. (4) (Formerly numbered M10.) Lecture, three hours; laboratory, one hour. Limited to undergraduate students. Introduction to environmental science as discipline and as way of thinking. Discussion of environmental and societal issues at local and global scales. Fundamentals of physical, chemical, and biological processes important to environmental science. Laboratory exercises to augment lectures. Letter grading.

12. Sustainability and Environment. (4) Lecture, three hours; discussion, one hour. Introduction to sustainability with emphasis on environmental component, including Earth's physical, chemical, and biological processes as related to resource demands and management. Examination of application of scientific methods in helping to understand and solve sustainability problems. Case studies illustrating how natural and social scientists work on environmental sustainability issues. Focus on global climate change, biodiversity, pollution, and water and energy resources prioritized in context of creating sustainable human society, that is environmentally sound, economically viable, and socially just and equitable. Letter grading.

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

25. Good Food for Everyone: Health, Sustainability, and Culture. (5) Lecture, three hours; discussion, one hour. Good food is healthy, sustainably produced, and culturally meaningful. Introduction to basic concepts and history of food systems, food science and nutrition, fair and sustainable food production, natural resources and environmental issues including climate change and biodiversity, agriculture and food policy and law, food distribution and access, cultural identity, and artistic engagements with food. P/NP or letter grading.

M30. Environmental Literature and Culture. (5) (Same as English M30.) Lecture, three hours; discussion, one hour. Enforced requisite: satisfaction of Entry-Level Writing requirement. Introduction to core themes, questions, and methods within interdisciplinary field of environmental humanities. Examination of how different culture forms (e.g., fiction, journalism, poetry, visual art) represent environmental issues. Topics may include biodiversity, wilderness, food, urban ecologies, postcolonial ecologies, environmental justice, and climate change. Service learning component included. Meaningful work with off-campus agency/ agencies selected by instructor. P/NP or letter grading.

M30SL. Environmental Literature and Culture (Service Learning). (5) (Same as English M30SL.) Lecture, three hours; discussion, one hour; fieldwork, two hours. Enforced requisite: satisfaction of Entry-Level Writing requirement. Introduction to core themes, questions, and methods within interdisciplinary field of environmental humanities. Examination of how different culture forms (e.g., fiction, journalism, poetry, visual art) represent environmental issues. Topics may include biodiversity, wilderness, food, urban ecologies, postcolonial ecologies, environmental justice, and climate change. Service learning component included. Meanful work with off-campus agency/ agencies selected by instructor. P/NP or letter grading.

89. Honors Seminars. (1) Seminar, three hours. Limited to honors students. Discussion-laboratory-discussion lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

89HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Directed as adjunct to lower-division lecture course. In individual study with lecture course instructor to explore discussions. M1CW. Special Topics. Semesters three hours. Enforced requisite: course M1B. Examination of specialized environmental and sustainability topics as they relate to food, including air, water, biodiversity, climate change, food access, food security, and health. Satisfies Writing II requirement.
topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

99. Student Research Program. (1 to 2) Tutorial (supervised research or other scholarly work), three hours per week per unit. Entry-level research for lower-division students under guidance of faculty mentor. Students must be in good academic standing and enrolled in a major or minor (excluding those courses). Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP grading.

Upper-Division Courses

M102. Soils and Environment. (4) (Formerly numbered M127.) (Same as Ecology and Evolutionary Biology M127 and Geography M102.) Lecture, three hours; discussion, one hour; field trips. General treatment of soils and environmental implications: soil development, morphology, and worldwide distribution of soil orders; physical, chemical, hydrologic, and biological properties; water use, erosion, and pollution; management of soils as related to plant growth and distribution of crops.

M102L. Soils and Environment Field. (1) (Formerly numbered M127L.) (Same as Ecology and Evolutionary Biology M127L and Geography M102L.) Laboratory, one hour; field excursions. Corequisite: course M102. Use of soils and demonstrations supporting material in course M102, including excavating, describing, and naming soils in field, soil forming processes, geology, and soils. P/NP or letter grading.

M103. Soil and Water Conservation. (4) (Formerly numbered M114.) (Same as Geography M103.) Lecture, three hours; discussion, one hour. Enforced requisites: one course from course 10, Geography 1, 2, Life Sciences 7B. Objectives for juniors/seniors: systematic study of processes of and hazards posed by erosion, sedentation, development, and pollution and techniques needed to conserve soil and maintain environmental quality. Scope includes agriculture, forestry, mining, and other rural uses of land. P/NP or letter grading.

M111. Earth and Its Environment. (4) (Same as Atmospheric and Oceanic Sciences M100.) Lecture: three hours. Overview of Earth as system of distinct, yet intimately related, physical and biological elements. Origins and characteristics of atmosphere, ocean, and biosphere. Survey of history and geology of Earth and of life on Earth, particularly in relation to evolution of physical world. Consideration of possibility of technological solutions to global environmental problems using knowledge gained during course. Letter grading.

121. Conservation of Biodiversity. (4) Lecture; three hours; discussion, two hours. Not open for credit to students with credit for Ecology and Evolutionary Biology 116. Examination of interrelation of natural biotic and human systems. Description of distribution of biodiversity and natural processes that maintain it. Critical analysis of various levels of threats and multidisciplinary challenges required for mitigating threats. Letter grading.

M125. Environmentalism: Past, Present, and Future. (4) (Formerly numbered M132.) (Same as Geography M125 and Urban Planning M165.) Lecture, three hours; discussion, one hour. Exploration of history and origin of major environmental ideas, movements or countermovements they spawned, and new and changing nature of modern environmentalism. Introduction to major frameworks of environmental thought and contemporary environmental questions as they relate to broader set of questions about nature of development, sustainability, and equity in environmental debate. Topics include global climate change, including global climate change, rise of pandemics, deforestation, and environmental justice impacts of war. Letter grading.

M125. Environmental Change. (4) (Formerly numbered M132.) (Same as Geography M125.) Lecture, three hours; reading period, one hour. Designed for juniors/seniors. Examination of natural forces producing environmental changes over past two million years. How present landscape reflects geologic, climatic, and human impacts. Effects of environmental change on people. Increasing importance of human activity in environmental modification. Focus on impact of natural and anthropogenic changes on forests. Letter grading.

M131. Human Impact on Biophysical Environment. (4) (Formerly numbered M109.) (Same as Geography M131.) Lecture, three hours; reading period, one hour. Enforced requisites: seniors. Examination of human role in shaping environment, the biophysical and human systems. Description of distribution of biotic communities and the distribution of nonliving material in course M102, including excavating, describing, and naming soils in field, soil forming processes, geology, and soils. P/NP or letter grading.

M133. Environmental Sociology. (4) (Same as Sociology and Genetics M133 and Sociology M115.) Lecture, three hours; discussion, one hour. Relationship between society and environment. Analysis in detail of interactions between social factors (such as class, race, gender, and religion) and environmental factors (such as pollution, sustainability, and local warming). P/NP or letter grading.

M134. Environmental Economics with Data Analysis. (4) (Formerly numbered M134.) Lecture, three hours. Requisite: one course from Economics 41, Life Sciences 40, Political Science 10, 12, 13. Other statistical analysis course approved by instructor. Examination of challenges of balancing environmental protection with wants and needs of people in an economy. Focus on how to design efficient public policies that meet environmental goals. How to quantify cause-and-effect relationships, for example, between pollution and infant mortality, using non-experimental data. P/NP or letter grading.

140. Foundations of Environmental Policy and Regulation. (4) Lecture, three hours. Introduction to environmental policy and regulation in U.S. Provides basic knowledge and skills needed to work as professional in environmental problem solver. Exploration of environmental harms that are subject to regulation, role of science in informing policy and regulation, evolution of environmental regulation, different types of regulatory approaches, regulatory alternatives, and alternative approaches to environmental decision making. Includes California Environmental Quality Act (CEQA), Proposition 65, and other policies that affect pollution control, and state's pioneering efforts in regulating greenhouse gas emissions. P/NP or letter grading.

150. Environmental Journalism, Science Communication, and Public Policy. (4) Seminar, three hours. Introduction to environmental journalism, science communications, and new media, including weekly guest lectures by prominent successful practitioners in wide variety of media. Focus on technologies, methods, genres, and theories of communicating environmental challenges, exploring solutions, and engaging public in newspapers, television, radio, magazines, blogs, and other social media. Discussion of possibilities and limitations of different media and importance of communications for environmental science, policy, public understanding, and individual environmental protection. Producing writing, developing ideas for environmental communications in variety of media. P/NP or letter grading.

M153. Introduction to Sustainable Architecture and Community Planning. (4) (Same as Architecture and Urban Planning M153.) Lecture, three hours. Examination of relationship of built environment to natural environment through whole systems approach, with focus on sustainable design of buildings and planning of communities. Emphasis on development of knowledge of renewable energy, and appropriate use of resources, including materials, water, and land. Letter grading.

157. Energy, Environment, and Development. (4) Lecture, three hours. Prerequisites: courses 3A or 3B, and 31A and 31B. Physics 1A and 1B or 6A and 6B. Introduction to basic energy concepts and examination of role of various energy sources, energy consumption technologies, and energy policies in modern society. Analysis of implications of current patterns of energy production and consumption for future economic and environmental well-being. Examination of policies and trends from physical to social sciences, engineering, environmental law, and public policy. Basic quantitative skills provided to analyze and critique technical, economic, and policy choices to address challenges of balancing economic growth and environmental sustainability. P/NP or letter grading.

C159. Life-Cycle Assessment. (4) (Formerly numbered M159.) Lecture, three hours. Requisites: Life Sciences 30A and 30B, or 31A and 31B. Public discourse about current patterns of production and consumption of energy, and goods and services more broadly, suggest such patterns are environmentally and economically unsustainable. Introduction to basic concept of life-cycle assessment (LCA), including analytical frameworks and quantitative techniques for systematically and holistically evaluating environmental trade-offs presented by different alternatives. Focus on methodology of LCA to compute various material inputs and environmental releases from all activities associated with life cycle (i.e., raw material extraction, production, and disposal) of products or services. Discussion of strengths and limitations of LCA as tool for decision making. Students perform life-cycle analysis of one technology, product, or service of their choice. Concurrently scheduled with course C259. P/NP or letter grading.

160. Topics in Environmental Economics and Policy. (4) Seminar, three hours. Requisites: Statistics 12 or 13. Examination of intersection of environmental economics and policy, with focus on testing policy-relevant environmental hypotheses using economics research. Invited scholars present research aiming at yielding policy-relevant results on various topics such as climate change, pollution, and transportation. P/NP or letter grading.

M161. Global Environment and World Politics. (4) (Same as Political Science M122B.) Lecture, three or four hours; discussion, one hour (when scheduled). Recommended requisite: Political Science 20. Politics and policy of major global environmental issues such as climate change, integrating law, policy, and political science perspectives. P/NP or letter grading.

162. Entrepreneurship and Finance for Environmental Scientists. (4) Lecture, three hours; discussion, one hour. Focus on key entrepreneurial and financial concepts, with an emphasis on yield of policy-relevant results on various topics such as pollution, climate change, and novel and appropriate use of resources, including materials, water, and land. Letter grading.

163. Business and Natural Environment. (4) Lecture, three hours. Examination of role of business in mitigating environmental pollution and incentives to be more environmentally responsive. Emphasis on corporate strategies that deliver value to shareholders while responding to environmental concerns. P/NP or letter grading.

M164. Environmental Politics and Governance. (4) (Same as Urban Planning M160.) Lecture, three hours. Environmental planning is more than simply finding problems and fixing them. Each policy must be negotiated and implemented with a complex web of actors and institutions. Environmental planning is about negotiating the environment, and appropriate use of resources, including materials, water, land, and Letter grading.

166. Leadership in Water Management. (4) Lecture, three hours; discussion, one hour. Limited to juniors/seniors. Examination of water quality and water supply issues and the role of interested stakeholders, technological, management, and policy issues. Invited experts, scholars, and practitioners discuss relevant issues such as pollution, climate change, and water in-
frustration. Emphasis on solutions involving integrated water supply and wastewater systems. Leadership development through writing instruction and negotiations and media training. P/NP or letter grading.

M167G. Environmental Justice through Multiple Lenses. (4) Same as Public Affairs M151 and Urban Planning M167G. Lecture, three hours. Examination of intersection between race, economic class, and environment in U.S., with focus on issues related to social justice. Basic methodological inequality is high in complex phenomenon, multidisciplinary and multi-population approach taken, using alternative ways of understanding, interpreting, and taking action. P/NP or letter grading.

170. Environmental Science Colloquium. (1) Seminar, 90 minutes; one field trip. Limited to undergraduates. Students read, at semester's end, evaluative research papers on environmental science, including participation in weekly colloquium series and field trips. May be repeated for credit. P/NP or letter grading.

175. Programming with Big Environmental Data. (4) Lecture, three hours; discussion, two hours. Enforced requisites: Statistics 12 or 13. Limited to Environmental Science majors who have completed 40 or more units of preparation for major courses, including statistics, and 12 or more units of upper-division courses toward major or minor requirements. Examination of case studies and presentation of tools and methodologies in environmental science, building on what students have been exposed to in other courses. Letter grading.

180B. Practicum in Environmental Science. (5) Lecture, one hour; laboratory, five hours. Requisite: course 180A. Course 180B is prerequisite to 180C. Limited to junior/senior Environmental Science majors. Investigation of various aspects of one environmental case study representing actual multidisciplinary issue. Particular emphasis on developing skills required for working as professionals in this field. Work may involve site investigations, original data collection and analysis, mapping and geographic information systems, and environmental policy and law issues. Credit for this laboratory course may be counted with other courses involving local agency or nonprofit institution. Letter grading.

180C. Practicum in Environmental Science. (5) Lecture, one hour; laboratory, five hours. Requisite: course 180B. Limited to junior/senior Environmental Science majors. Investigation of various aspects of one environmental case study representing actual multidisciplinary issue. Particular emphasis on developing skills required for working as professionals in this field. Work may involve site investigations, original data collection and analysis, mapping and geographic information systems, and environmental policy and law issues. Credit for this laboratory course may be counted with other courses involving local agency or nonprofit institution. Letter grading.

185A. Sustainability Talks. (1) Lecture, two hours. Analysis of principles of sustainability through series of lectures by renowned faculty members, authors, environmentalists, entrepreneurs, policymakers, and progressive thinkers. May be repeated for credit. P/NP grading.

185B. Sustainability Action Research. (2) Lecture, two hours; fieldwork, six hours. Investigation of issues of campus sustainability, including energy efficiency, transportation, waste stream management, sustainable food practices, and more by student researchers that, together with faculty members and UCLA staff, strive to make UCLA more sustainable community. May be repeated for credit. Letter grading.

185C. Sustainability Action Leaders. (3) Seminar, two hours; fieldwork, six hours. Students lead research teams to investigate issues of campus sustainability, including energy efficiency, transportation, waste stream management, sustainable food practices, and more by student researchers that, together with faculty members and UCLA staff, strive to make UCLA more sustainable community. May be repeated for credit. Letter grading.

186. Comparative Sustainability Practices in Local/Global Settings. (4) Fieldwork and comparative analysis of local and regional scale. Emphasis on regional or international settings. May be repeated for credit. Letter grading.

188A. Special Courses in Environment. (4-2) Lecture, three hours; discussion, one hour (when scheduled—course 188A and two hours (course 188B). Departmentally sponsored experimental or temporary courses, directed by visiting faculty or non-INFEWS faculty members. May be repeated for credit with topic change. P/NP or letter grading.

188AS. Individual Studies for USIE Facilitators. (1) Tutorial, to be arranged. Enforced corequisite: Honors College 101E. Limited to USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor to discuss selected USIE seminar topic, conduct preparatory research, and begin preparation of syllabus. Individual contract with faculty mentor required. May not be repeated. Letter grading.

188BS. Individual Studies for USIE Facilitators. (1) Tutorial, to be arranged. Enforced requisite: course 188SA. Enforced corequisite: Honors College 101E. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor to finalize course syllabus. Individual contract with faculty mentor required. May not be repeated. Letter grading.

188C. Individual Studies for USIE Facilitators. (2) Tutorial, to be arranged. Enforced requisite: course 188BS. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor while facilitating USIE 885 course. Individual contract with faculty mentor required. May not be repeated. Letter grading.

188D. Individual Studies for USIE Facilitators. (2) Tutorial, to be arranged. Enforced requisite: course 188BS. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor while facilitating USIE 885 course. Individual contract with faculty mentor required. May not be repeated. Letter grading.


190A. Practicum in Environmental Science. (4) Lecture, three hours; discussion, one hour (when scheduled—course 195 and two hours (course 198). Enforced requisites: Statistics 101 and 102. Limited to upper-division students enrolled in Environmental Science. Particular emphasis on development of students' ability in application of knowledge gained in other courses. May be repeated for credit. P/NP or letter grading.


240. Food, Energy, and Water Systems Management Seminar. (1) Seminar, one hour. Designed for students in science, technology, engineering, and mathematics (STEM) field interested in nexus of food, energy, and water systems (FEWS) management and sustainability. Discussion of issues of science, technology, policy, economics, and law with experts in industry, academia, and government. Career development activities including proposal writing, conflict resolution, business and entrepreneurship. Course is part of National Science Foundation (NSF) graduate traineeship in integrated urban solutions for food, energy, and water systems (INFEWS). Enrollment for non-INFEWS students in STEM graduate education and related sustainability majors/topics by consent of instructor. S/U grading.

241. Food, Energy, and Water Systems Management in Urban Systems Field Laboratory. (4) Fieldwork, four hours. Designed for students in science, technology, engineering, and mathematics (STEM) field interested in nexus of food, energy, and water systems (FEWS) management and sustainability. Weekly visits to facilities related to FEWS, and discussion of issues of science, technology, policy, economics, and law in written report. Course is part of National Science Foundation (NSF) graduate trainee-
hip in integrated urban solutions for food, energy, and water systems (INFEWS). Enrollment for non-INFEWS students in STEM graduate education and related sustainability majors/topics by consent of instructor. S/U or letter grading.

M242. Science Communications and Environmental Media. (4) (Formerly numbered 242.) Same as English M290.) Seminar, three hours. Designed for graduate students in food, energy, and water systems (FEWS) training grant program to survey fields of science communications and environmental narrative from nonfiction to new media (multimedia journalism, documentary, social media, virtual reality, etc.), and to develop collaborative projects communicating scientific research to diverse public audiences. Course is part of National Science Foundation (NSF) graduate traineeship in integrated urban solutions for food, energy, and water systems (INFEWS). Enrollment for non-INFEWS students in STEM graduate education and related sustainability majors/topics by consent of instructor. S/U or letter grading.

250. Tools for Sustainability Assessment. (4) Lecture, three hours. Interdisciplinary research course examining the implications of current patterns of production and consumption of energy and various goods and services suggests such patterns are unsustainable. What is meant by sustainability and how is it quantified? Focus on concepts and tools to assess sustainability at micro- to macro-levels of individual products, or firms using various techniques, including life-cycle assessment, input-output analysis, and cost-benefit analysis. Course is part of the Sustainability in Food, Energy, Water Systems (FEWS) training grant program. Enrollment of UCLA students in courses taken under permission of the instructor may be repeated for credit. S/U grading.

257A-257B. Advanced Topics in Environment and Sustainability. (4–2) Seminar, four hours (course 257A) and two hours (course 257B). Advanced study and analysis of variable current topics in environment and sustainability. Consult Schedule of Classes for topics and instructors. May be repeated for credit with consent of instructor. S/U or letter grading.

375. Teaching Apprentice Practicum. (1 to 4) Seminar, to be arranged. Supervised investigation of one technology, product, or service as tool for decision making. Students perform life-cycle analysis of one technology, product, or service associated with life cycle (i.e., raw material extraction, processing, end use, and disposal) of products or services. Development of technical writing skills using critique, exercises, and examples. S/U grading.


M412. Effective Technical Writing. (2) (Same as Environmental Health Sciences M412.) Seminar, two hours. Essentials of grammar, punctuation, syntax, organization, and format needed to produce well-written journal articles, research reports, memoranda, letters, and reports. Development of technical writing skills. Preparation of manuscript for publication in peer-reviewed journal. S/U grading.

M414. Effective Oral Presentation. (2) (Same as Environmental Health Sciences M414.) Seminar, two hours. Development of advanced technical writing skills, with exercises focused on preparation of manuscript for publication in peer-reviewed journal. S/U grading


501. Cooperative Program. (2 to 8) Tutorial, to be arranged. Preparation: consent of UCLA graduate advisor and graduate dean, and host campus instructor, department chair, and graduate coordinator. Used to accommodate enrollment of UCLA students in courses taken under cooperative arrangements with USC. S/U grading.


599. Doctoral Dissertation Research. (2 to 12) Tutorial, to be arranged. Limited to students who have advanced to doctoral candidacy. May not be applied toward any degree course requirements. May be repeated for credit. S/U grading.
Graduate Study

Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Division website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Graduate Degrees

The Department of Environmental Health Sciences offers Master of Science (MS) and Doctor of Philosophy (PhD) degrees in Environmental Health Sciences.

Environmental Health Sciences

Lower-Division Courses

19. Fiat Lux Freshman Seminars. (1 Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

89. Honors Seminars. (1 Seminar, three hours. Limited to 20 students. Designed as adjunct to lower-division lecture course. In- dividual study with course lecture instructor to explore topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

89HC. Honors Contracts. (1 Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to lower-division lecture course. Individual study with course lecture instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

99. Student Research Program. (1 to 2) Tutorial (supervised research or other scholarly work), three hours per week. Entry-level research for lower-division students under guidance of faculty mentor. Students must be in good academic standing and enrolled in minimum of 12 units (excluding this course). Individual contract required; consult Undergraduate Research Center. May be repeated, P/NP grading.

Upper-Division Courses

101. Fundamentals of Chemistry for Environmental Health. (3 Lecture, three hours; discussion, one hour. Guided tutorial on fundamental chemical concepts that are important for public health students that either do not have strong background in chemistry or who have not recently taken chemistry class and want to refresh their knowledge. Discussion of examples relevant to environmental health more broadly in each topic area and used to illustrate why understanding fundamental chemical concepts is important. Inter- active study with focus on core chemical concepts. Recommended to be taken before or concurrently with introductory courses. P/NP or letter grading.

C125. Atmospheric Transformations of Airborne Chemicals. (4 Lecture, four hours. Preparation: one year of calculus, one course each in physics, organic chemistry, and physical chemistry. Described for science, engineering, and public health students. Role of regional or long-range transport, and atmospheric lifetimes and fates of airborne chemicals in phenomena such as photochemical smog, acid deposition, stratospheric ozone depletion, accumulation of greenhouse gases, and regional and global distribution of volatile toxic compounds. Concurrently scheduled with course C225, P/NP or letter grading.

C135. Environmental Policy for Science and Engineering. (4 Lecture, four hours. Limit to seniors and graduates. Study of theoretical underpinnings of several major types of regulatory policy, as well as practical issues involved in implementing them. Exploration of selection and impact of regulatory forms from variety of disciplines and viewpoints. Focus on traditional command and control regulation (including self-executing performance standards and permitting) and market-based regulation (such as emissions trading), remediation, and emerging regulatory approaches such as management-based regulation and alternative assessment. Issues of compliance and enforcement. Concurrently scheduled with course C225, P/NP or letter grading.

C140. Fundamentals of Toxicology. (4 Lecture, four hours. Preparation: one course each in biology, organic chemistry, and biochemistry. Essential aspects of toxicology, with emphasis on human species. Absorption, distribution, excretion, biotransformation, as well as basic toxicologic processes and organ systems. Concurrently scheduled with course C240, Letter grading.

C152D. Properties and Measurement of Airborne Particles. (4 Lecture, four hours. Preparation: one year each of chemistry, physics, and calculus. Basic theory and application of aerosol science to environmental health, including properties, behavior, sampling, and measurement of aerosols and quantitative problems. Concurrently scheduled with course C252D, P/NP or letter grading.

C157. Risk Assessment and Standard Setting. (4 Seminar, four hours. Requisite: course C140. Designed to provide students with opportunity to review scientific basis for association of selected occupational and environmental exposures with disease. Special emphasis on critical evaluations of literature. Attention specifically to interface of science and regulatory standards. Concurrently scheduled with course C257, P/NP or letter grading.


M166. Environmental Microbiology. (4 Same as Civil Engineering M166.) Lecture, four hours; discussion, two hours; outside study, six hours. Requisite- required: Civil Engineering 153. Microbial cell and its metabolic capabilities, microbial genetics and its potentials, growth of microbes and kinetics of growth, microbial ecology and diversity, microbiology of wastewater treatment, probing environmental health microbiology, pathogen control. Letter grading.

M166L. Environmental Microbiology and Biotechnology Laboratory. (1) Same as Civil Engineering M166L. Laboratory, two to three hours; outside study, two hours. Concurrent: course M166. General laboratory practice within environmental microbiology, sampling of environmental samples, classical and modern mo- lecular techniques for enumeration of microbes from environmental samples, techniques for determination of microbial activity in environmental samples, labora- tory setups for studying environmental biotechnology. Letter grading.

C185A. Foundations of Environmental Health Sciences. (6 Lecture, six hours. Preparation: one year of undergraduate biology and chemistry. Introduction to field of environmental health sciences designed for students pursuing MS degrees. Examination of series of topics relevant to science of environmental health (e.g., population, agriculture/food, microbiology, energy, climate change, water, waste, air) by introducing scientific basis from ecological perspective and de- scribing how topics relate to health on biochemical and molecular basis. Emphasis on scientific aspects of field, with focus on critique of primary literature and qualitative approaches for examining topics to provide skills that are critical to perform research. Concurrently scheduled with course C200A, Letter grading.

C185B. Foundations of Environmental Health Sciences for Public Health Professionals. (2) Lecture/ seminar, two hours. Preparation: 4 units each of under- graduate chemistry and biology. Future environmental health and public health leaders must understand vocabulary and systems related to local, regional, and global environmental factors affecting public health. Development of content knowledge and thought processes to effectively analyze environmental health problems and development, implementation, and leading of actions to address these prob- lems. Supplements content presented in Public Health 200A and 200B and Environmental Health 100. Concurrently scheduled with course C252D, P/NP grading.

C185C. Foundations of Environmental Health Sciences. (6 Lecture, four hours; group project, two hours. Enforced requisite: course C185A or C185B. Multidisciplinary aspects of environmental health sciences in context of public health for environmental health majors. Concurrently scheduled with course C200C, Letter grading.

189. Advanced Honors Seminars. (1 Seminar, three hours. Limited to 20 students. Individual honors contract required. Honors content noted on transcript. P/NP or letter grading.

189HC. Honors Contracts. (1 Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to undergraduate lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible stu- dents. Honors content noted on transcript. P/NP or letter grading.

197. Individual Studies in Environmental Health Sciences. (2 to 4) Tutorial, four hours. Limited to ju- niors/seniors. Individual intensive study, with sched- uled meetings to be arranged between faculty member and student. Assigned reading and tangible evidence of mastery of subject matter required. May be be repeated for credit. Individual contract required. P/NP or letter grading.

Graduate Courses

C200A. Foundations of Environmental Health Sciences. (6 Lecture, six hours: Preparation: one year of undergraduate biology and chemistry. Introduction to field of environmental health sciences designed for students pursuing MS degrees. Examination of series of topics relevant to science of environmental health
(e.g., population, agriculture/soil, microbiology, energy, climate change, water, waste, air) by introducing scientific basis from ecological perspective and describing how topics relate to health on biochemical and molecular basis. Emphasis on scientific aspects of field with focus on critique of primary literature and quantitative approaches for examination of topics to provide skills that are critical to perform research. Concurrently scheduled with course C185A. Letter grading.

C200B. Foundations of Environmental Health Sciences for Public Health Professionals. (2) Lecture/ seminar, two hours. Preparation: 4 units each of under-graduate level biology, future public health professionals and public health leaders must understand vocabulary and systems related to local, regional, and global environmental factors affecting public health. Development of content knowledge and thought processes to effectively analyze environmental health problems and development, implementation, and leading of actions to address these problems. Supplements content presented in Public Health 200A and 200B and Environment 100. Concurrently scheduled with course C185B. Letter grading.

C200C. Foundations of Environmental Health Sciences. (6) Lecture, four hours; group project, two hours. Preparation: courses C200A, C200B. Multidisciplinary aspects of environmental health sciences in context of public health for environmental health majors. Concurrently scheduled with course C185C. Letter grading.

200D. Policy Analysis for Environmental Health Science. (4) Lecture, two hours; discussion, two hours. Designed for second-year Environmental Health Sciences MS and MPH students. Practice-focused synthesis and application of content from prior courses to analyze current environmental health policy issues. Students learn fundamentals of environmental health law, regulatory frameworks, communication techniques, and approaches for working with community-based organizations, and policy analysis methods. Focus on environmental and occupational health and policy aspects of single case study. S/U or letter grading.

201. Seminar: Health Effects of Environmental Contaminants. (2) Seminar, two hours. Requisites: courses C220A or C220B and C200C. Emphasis on health effects of air, water, environmental pollutants on man and review of research literature. May be repeated for credit. S/U or letter grading.

202. Seminar: Ecotoxicology. (2) Seminar, two hours. Ecotoxicology topics in ecotoxicology. Topics vary from term to term and include aspects of environmental chemistry, toxicology, and ecology. May be repeated for credit. S/U grading.

203. Seminar: Exposure Assessment. (2) Seminar, two hours. Discussion of various topics in exposure assessment. Topics vary by term and include aspects of population activity, microenvironments, types of monitoring equipment (personal, biomarkers), and multimedia sources of exposure. S/U grading.

205. Environmental Health Sciences Doctoral Seminar. (2) Seminar, two hours. Limited to environmental health sciences doctoral students. Presentation of current research topics, evaluation of research methodology, and discussion of problems encountered by the instructor and doctoral students. May be repeated for credit. S/U grading.

206. Seminar: Applied Coastal Ecology. (2) Seminar, two hours. Discussion of various topics in applied coastal ecology including global topics by term and include wetland ecology, estuarine ecology, and ecology and management of coastal watersheds. May be repeated for credit. S/U grading.

207. Introduction to Geographic Information Systems. (2) Lecture, two hours; laboratory, two hours. Introduction to geographic information systems (GIS), including use of GIS software, mapping, geocoding, and data analysis. S/U or letter grading.

208. Built Environment and Health. (4) Lecture, three hours; discussion, one hour. Limited to public health and urban planning graduate students. Interdisci- plinary course on built environment and health and breaking down silos. U.S. and other developed, as well as built environment interventions face increasingly lethal and costly epidemics of acute and chronic diseases related to land use and built environment deci- sions. While hazards presented by air and water pollution are well recognized for acute, infectious and toxicological illnesses, there is increasing recognition of hazards presented by building and community de- signs that fail to recognize human health. Land use and as built environment interventions face increasingly severe economic, social and racial minority. Impacts range from very acute (motor vehicle trauma) to long term (obesity, cancer, heart disease). Decisions have as their bases economic, financial, insurance, housing, and other factors. Analysis of each factor and related disease endpoints. S/U or letter grading.

209. Practical Applications in Environmental Health Sciences. (2) Lecture, two hours. Enforced requisites: courses C200A, C200B. Description of many leading environmental and occupational health problems that environmental health practitioners face today, con- ducted as seminar with focus on problems, field exercises, and group projects, to help students develop skills necessary to integrate concepts across disciplines in field of environmental health. May satisfy some requirements needed to qualify for Registered Environmental Health Specialist (REHS) certification. S/U or letter grading.


211. Seminar: Practical Aspects of Biosafety and Biosecurity. (2) Seminar, two hours. Preparation: one year of introductory biology. Recommended requisite: Microbiology 101 or 102. Designed for environmental health sciences graduate students and students in UCLA Biosafety Training Program. In- teractive seminar with focus on critical concepts in both practical aspects of biosafety, biosecurity, risk as- sessment, and risk management that are needed for individuals wishing to serve as interns in UCLA bio- safety program and/or become biosafety profes- sionals. S/U or letter grading.

214. Children’s Environmental Health: Prenatal and Early Childhood Development. (4) Lecture, four hours. Preparation: one year each of chemistry and biology. Examination of how environmental exposures to chemicals, physical, and biological agents during period of maturation (from fertilization to adulthood) cause pathophysiological perturbations in homeostasis at any stage during life. Letter grading.

215. Fundamentals of Health Impact Assessment. (4) Seminar, four hours. Provides students with sound understanding of health impact assessment (HIA) practice, its rationale and underlying principles, and opportunities to develop and apply HIA skills in work with public agencies and community-based organiza- tions. Focus on problem solving skills- HIA and student experiences working on HIA-related projects. S/U or letter grading.

M217. Graduate Seminar in Environmental Eco- nomics and Policy. (4) (Same as Public Policy M217.) Seminar, four hours. Preparation: undergraduate-level statistics, basic undergraduate microeconomics. In- troduction to applied scholarship in environmental economics and policy. Enables students to become more proficient producers and consumers of social science research that explores questions of environ- mental policy and sustainability broadly construed. Topics include health and economic impacts of climate change, demographic change, and efficient and equitable design of environmental policies (e.g., cap and trade, carbon taxes). Development of de- tailed empirical research proposal and short presenta- tion, Letter grading.


C225. Atmospheric Transport and Transformations of Airborne Chemicals. (4) Lecture, four hours. Preparation: one year of calculus, one course each in physical chemistry, and environmental chemistry. Designed for science, engineering, and public health students. Role of regional or long-range transport, and atmospheric lifetimes and fates of airborne chemicals in phenomena such as photochemical smog, acid deposition, stratospheric ozone depletion, accumulation of greenhouse gases, and regional and global dis- tribution of volatile toxic compounds. Concurrently scheduled with course C125. S/U or letter grading.

230A-230C. Interdisciplinary Occupational Health Practice. (2–2–2) Seminar, one hour; field- work, one hour. Multidisciplinary nature of occupa- tional health practice featured and explored in these various specialty courses. Size of the course varies. Emphasis on recognition, prevention, surveillance, and manage- ment of work-related health problems that occupa- tional health and safety researchers and professionals encounter in various settings. Lectures, discussions, seminars, field exercises, workshops, clinical case conferences, and group assignments combined to help students develop skills necessary to integrate and apply knowledge of epidemiology and occupa- tional hazard detection and control, work-related injury and illness surveillance, and disease and disability prevention from different disciplines in field of occupa- tional health and safety. Letter grading.

C235. Environmental Policy for Science and Engi- neering. (4) Lecture, four hours. Limited to senior un- dergraduate and graduate students. Examination of theoretical underpinnings of several major types of regulatory policy, as well as practical issues involved in implementing and enforcing each. Exploration of selection and impact of regulatory forms from variety of disciplines and viewpoints. Focus on traditional command and control regulation (including self-exe- cuting performance standards and permitting), market-based regulation (such as emissions trading), remediation, and emerging regulatory approaches such as management-based regulation and alterna- tives assessment. Issues of compliance and enforce- ment. Concurrently scheduled with course C135. Letter grading.

C240. Fundamentals of Toxicology. (4) Lecture, four hours. Preparation: one course each in biology, organic chemistry, and biochemistry. Essential aspects of toxicology, with emphasis on human species. Ab- sorption, distribution, excretion, biotransformation, as well as basic toxicologic processes and organ sys- tems. Concurrently scheduled with course C140. Letter grading.

M241. Advanced Concepts in Gene-Environment Interaction. (4) Seminar. In- troduction to Toxicology. (M247.) Lecture, three hours; discussion, one hour. Comprehensive and practical examination of emerging science of gene-environment interaction. Description of primary forms of analysis, including role of metabolic pathways and the importance of environmental influences in human disease. Exploration of selected hot topics, such as epigenetics and of microbiome. S/U or letter grading.

M242. Toxicodynamics. (2) Same as Molecular Toxicology M242.) Lecture, one hour; discussion, one hour. Preparation: undergraduate biology and chem- istry courses. Required: course C240. Examination of recent literature on mechanisms of toxicity or toxico- dynamics. Student presentation of papers selected by instructor on various aspects of toxic mechanisms, includ- ing gene mutation, radical mechanisms, mechanisms of cell death, metal toxicity/ion homeostasis, intracellular pH and calcium regulation, stress and adaptive pathways,
DNA repair/mutation, carcinogenesis, and teratogenesis. Discussion of various papers. S/U or letter grading.

C252D. Properties and Measurement of Airborne Particles. (4) Lecture, four hours; Preparation: one year each of chemistry, physics, and calculus. Theoretical and practical aspects of control science to environmental health, including properties, behavior, sampling, and measurement of aerosols and quantitative problems. Concurrently scheduled with course C152D. S/U or letter grading.

252E. Identification and Measurement of Gases and Vapors. (4) Lecture; three hours; discussion; one hour; outside study, two hours; Preparation: one year each of chemistry, physics, and calculus. Theoretical and practical aspects of industrial hygiene sampling and measurement of gases and vapors. Letter grading.

252F. Industrial Hygiene Measurements Laboratory. (3) Laboratory; three hours. Corequisites: courses C252D, 252E. Limited to industrial hygiene majors. Laboratory methods for sampling, measurement, and analysis of gases, vapors, and aerosols found in occupational environment. S/U or letter grading.

252G. Industrial and Environmental Hygiene Assessment. (4) Lecture; one hour; discussion; two hours; laboratory; two hours; outside study, four hours. Requisites: courses C200A, C200B, C252D, 252E, 252F. Environmental hygiene. Sampling strategies and assessment via walk-through surveys, lectures, group discussion, actual field measurements, laboratory calibrations, and analyses and reports. Written emphasis on chemical, physical, and ergonomic hazards. Letter grading.

253. Physical Agents in Work Environment. (2 to 4) Lecture; two hours; laboratory; two hours; Preparation: one year of physical sciences and measurement methods, health effects, and control methods for radiation (ionizing and nonionizing), noise, and thermal stress in workplace environment. S/U or letter grading.

255. Control of Airborne Contaminants in Industry. (4) Lecture; two hours; laboratory; two hours. Preparation: one year of physical sciences and measurement methods, health effects, and control methods for radiation (ionizing and nonionizing), noise, and thermal stress in workplace environment. S/U or letter grading.

256. Biological and Health Surveillance in Occupational/Environmental Health. (4) Lecture; three hours; discussion; one hour; assignments, three hours. Principles of biologic monitoring, epidemiology, and occupational health surveillance to assess occupational and environmental exposures to organic and inorganic chemicals and physical factors. Letter grading.

257. Risk Assessment: Setting. (4) Seminar, four hours. Requisite: course C252D. Designed to provide students with opportunity to review scientific basis for association of selected occupational and environmental exposures with disease. Special emphasis on critical evaluations of literature. Attention specifically to interface of science and regulatory standards. Concurrently scheduled with course C157. S/U or letter grading.

258. Identification and Analysis of Hazardous Wastes. (4) Lecture; three hours; discussion; one hour; laboratory; one hour; one field trip. Requisite: course C252E. Designed to define, identify, label, and quantity hazardous substances and how workers should be protected. Provides critical understanding of all analytical aspects of hazardous wastes, health aspects, and regulation and practice of handling hazardous wastes. Letter grading.

259A. Occupational Safety and Ergonomics. (4) Lecture; four hours. Overview of most frequent and severe occupational injuries and illnesses, their distribution, causes, analysis methods, and control approaches. Injuries include back, falls, machine exposures, upper extremity musculoskeletal disorders, fleet safety, and selected ergonomics topics. Letter grading.

259B. Workplace Safety. (2) Lecture, two hours. Introduction to broad range of topics in workplace safety through lectures on safety hazards, their classification, metrics, control philosophy, and control methods. Specific topics include traditional safety rubrics, such as fall hazards, machine safety, and fire hazards. Introduction to concepts of safety culture and philosophy. Review and presentation of peer-reviewed articles on topics relevant to course material. Letter grading.

M250. Occupational Epidemiology. (4) Same as Epidemiology M261. Lecture, three hours. Requisites: Epidemiology 100; for Epidemiology majors, Epidemiology 200A, 200B. 200C. Methodological considerations, applicability of epidemiological studies to occupational groups and environments. S/U or letter grading.

261. Chemical Behavior of Aquatic Systems. (4) Lecture; one hour; laboratory, two hours; outside study, two hours. Preparation: one year each of chemistry and calculus. Chemical behavior of aquatic systems, chemical oxygen demand, carbon dioxide cycle, solubility reactions, oxidation and reduction, plus applied problems. Letter grading.

C264. Fate and Transport of Organic Chemicals in Aquatic Environment. (4) Lecture, four hours. Preparation: one year each of chemistry, physics, and calculus. Basic principles and applications of control technology to inorganic and organic contaminants found in aquatic environments. S/U or letter grading.

M270. Work and Health. (4) Same as Community Health Sciences M276L. Lecture; three hours; practical one hour. Reconciled preparation: graduate-level methods/statistics course, basic epidemiology. Designed for graduate students. Exploration of impact of work on physical and psychological health in context of newly emerging discipline. Focus on psychosocial models, measurement (including hands-on experience), contextual factors (gender, ethnicity, social class), and how work stressors can be ameliorated. S/U or letter grading.

296A-296N. Research Topics in Environmental Health Sciences. (4) Seminar, two hours. Each hour is devoted to a specific area. May be repeated for credit. S/U or letter grading.

M296A-296N. Research Topics in Environmental Health Sciences. (4) Seminar, two hours. May be repeated for credit. S/U or letter grading.

C296L. Genetic Toxicology. Lecture, three hours; discussion, one hour; laboratory, four hours. Corequisites: courses C200A, C200B, 401. Requisite: consent of instructor. Principles of genetics important for understanding of genetic toxicity. Letter grading.

C296M. Aquatic Chemistry. Lecture, three hours; laboratory, four hours; other, two hours. Preparation: one year each of chemistry and calculus. Principles of aquatic systems, interactions of dissolved and particulate matter with aquatic system. Letter grading.

C296N. Water Science and Health. Lecture, three hours. Preparation: one year each of chemistry and calculus. Characterization of freshwater and seawater resources. Chemical and biological factors, such as fall hazards, machine safety, and fire hazards. Introduction to concepts of safety culture and philosophy. Review and presentation of peer-reviewed articles on topics relevant to course material. Letter grading.

296P. Teaching Apprentice Practicum. (1 to 4) Seminar, three hours; laboratory, four hours; field work, two hours. Preparation: consent of instructor. Teaching assistants in development of innovative instructional methods for publication in peer-reviewed journal. S/U grading.

M296Q. Effective Technical Writing. (2) Same as English M241B. Seminar, two hours. Development of advanced technical writing skills, with exercises focused on preparation of manuscripts for publication in peer-reviewed journals. S/U grading.

M296R. Effective Oral Presentation. (2) Same as Environmental M414. Seminar, two hours. Introduction to oral presentations. Development of oral presentation skills, including content structure, visual aids, delivery, and audience interaction. S/U grading.


454. Health Hazards of Industrial Processes. (4) Lecture; two hours; field trips, four hours. Requisite: course 255. Industrial processes and operations and occupational health hazards that arise from them. Letter grading.

461. Water Quality and Health. (4) Lecture; three hours; discussion; one hour. Requisites: courses C296L, 401. Introduction to water resources. Study of major chemical and biochemical processes, phase transformation, and interaction of chemical and biological contaminants that may affect human health. Letter grading.


495. Teacher Preparation in Environmental Health Sciences. (2) Seminar, two hours. Preparation: 18 units of cognate courses in area of specialization. May not be applied toward MS minimum course requirement. May be repeated for credit. S/U grading.

M496D. Directed Individual Study or Research. (2 to 8) Tutorial, to be arranged. Limited to graduate students. Individual guided studies under direct faculty supervision. Only 4 units may be applied toward MPH and MS minimum total course requirement. May be repeated for credit. S/U grading.

M497. Preparation for Master's Comprehensive or Doctoral Qualifying Examinations. (2 to 8) Tutorial, to be arranged. Limited to graduate students. May not be applied toward any degree course requirements. May be repeated for credit. S/U grading.
Scope and Objectives

Epidemiology is the study of the distribution and determinants of disease in human populations. Epidemiologists study variations of disease incidence in relation to factors such as age, sex, race, environmental factors, lifestyle, demographic variables, occupational and social characteristics, place of residence, susceptibility, exposure to specific agents, or other pertinent characteristics. Also of concern are the temporal and special distribution of disease, examination of trends, and intervals between exposure to causative factors and onset of disease. The scope of the field extends from study of the patterns of disease to the causes of disease with the goal of control or prevention of disease. What distinguishes epidemiology from other clinical sciences is the focus on health problems in populations rather than in individuals, with the focus on public health.

Epidemiology is a young field with constantly expanding boundaries. The range of activities includes identifying determinants of population health, investigation and control of disease outbreaks, study of environmental and industrial hazards, evaluation of preventive or curative programs or treatments, and evaluation of the effectiveness and efficiency of intervention or control strategies. Many tools of epidemiology are shared with other fields such as microbiology, immunology, medicine, statistics, demography, and medical geography.

There is a growing core of epidemiologic methodology that includes the principles of study design and conduct, and statistical methods. Epidemiologic tools have become relevant for many other fields of scientific inquiry and public health. For example, the principles of epidemiology are used in the design and conduct of clinical trials, environmental health studies, and public health surveillance systems. Epidemiology is a fundamental discipline in the field of public health, and its principles are applied in a wide range of fields, including medicine, nursing, public health, and social sciences.

Graduate Study

Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Division website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Graduate Degrees

The Department of Epidemiology offers Master of Science (MS) and Doctor of Philosophy (PhD) degrees in Epidemiology.

Epidemiology

Lower-Division Courses

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

99. Student Research Program. (1 to 2) Tutorial (supervised research or other scholarly work), three hours per week per unit. Entry-level research for lower-division students under guidance of faculty mentor. Students must be in good academic standing and enrolled in minimum of 12 units (excluding this course). Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP grading.

Upper-Division Courses

100. Principles of Epidemiology. (4) Lecture, four hours; discussion; two hours. Preparation: one full biological sciences course. Introductory course to provide qualified undergraduate students with broad and comprehensive overview of concepts of epidemiology including evaluating public health problems in terms of magnitude, person, time and place; critiquing epidemiologic studies; identifying and accessing key sources of data for epidemiologic assessment; using epidemiologic methods and calculating basic epidemiology measures for operational purposes; and communicating basic principles of epidemiology such as definitions of populations, sources of bias, causation for morbidity and mortality, risk and protective factors, and basics of study design. Letter grading.

CM175. Terrorism, Counterterrorism, and Weapons of Mass Destruction: Practical Approach. (5) (Same as Honors Collegium M175.) Seminar, three hours. Terrorism, its origins, and ways of addressing terrorism at local, national, and global levels. Guest speakers from variety of UCLA departments and from Los Angeles. Concurrently scheduled with course C275. P/NP or letter grading.

188SA. Individual Studies for USIE Facilitators. (1) Tutorial, to be arranged. Enforced corequisite: Honors Collegium 101E. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor to discuss selected USIE seminar topic, conduct preparatory research, and begin preparation of syllabus. Individual contract with faculty mentor required. May not be repeated. Letter grading.

188SR. Individual Studies for USIE Facilitators. (1) Tutorial, to be arranged. Enforced corequisite: course 188SA. Enforced corequisite: Honors Collegium 101E. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor.
200A. Methods I: Basic Concepts and Study Designs. (6) Lecture; three hours; discussion; one hour. Introduction of basic concepts and methods in epidemiology with emphasis on measuring disease occurrence, study design, and assessing causal relationships. Letter grading.


M203. Topics in Theoretical Epidemiology. (2) Formerly numbered 203. (Same as Health Policy M201.) Lecture, two hours. Selected topics from current research areas in epidemiologic theory and quantitative methods. Topics selected from biologic models, epidemiologic models, problems in inference, model specification problems, design issues, analysis issues, and confounding. May be repeated for credit with consent of instructor. S/U grading.


M211. Statistical Methods for Epidemiology. (4) (Same as Statistics M250.) Lecture, four hours. Preparation: two terms of statistics (such as Biostatistics 100A, 100B). Requisites: courses 200B, 200C. Concepts and methods tailored for analysis of epidemiologic data, with emphasis on tabular and graphical techniques. Topics introduced in courses 200B and 200C and introduction of new topics, including principles of epidemiologic analysis, trend analysis, analysis of sensitivity and specificity analysis. S/U or letter grading.


215. Systematic Review and Meta-Analysis. (4) Lecture, two hours. Requisites: courses 100 or 200A, and Biostatistics 100A, or Public Health 200A and 200B. Offers theoretical and practical understanding of systematic reviews and meta-analysis of clinical trials and observational studies. Students learn how to conduct systematic literature search, assess quality of selected studies, identify sources of heterogeneity, conduct meta-analysis, and understand standards of reporting on meta-analyses. Offers practical training in meta-analyses and regression using STATA software. Letter grading.

216. Applied Sampling. (4) (Same as Statistics CM248.) Lecture, three hours; discussion, one hour. Designed for upper-division and graduate students in social sciences and those who plan to major in Statistics. Topics include methods of sampling from finite populations, sources of sampling and estimation bias, and methods of generating efficient and precise estimates of population characteristics, practical applications of sampling methods via lectures and hands-on laboratory exercises. S/U or letter grading.

217. Social Networks and Public Health. (4) Lecture, four hours. Requisites: courses 210 or 200A, or Public Health 200A and 200B. Principles of social network research, social network analysis, and social network intervention, especially in relation to public health health. Possible examples are provided in R (mainly R igraph and ggplot2 packages). Discussion of landmark social network papers relevant to public health. S/U or letter grading.

M218. Questionnaire Design and Administration. (4) (Same as Community Health Sciences M211) Lecture, four hours. Requisites: courses 200B and 200C, or Community Health Sciences 211A and 211B. Design, testing, field use, and administration of data collection instruments, in particular emphasis on questionnaires. Letter grading.

220. Principles of Infectious Disease Epidemiology. (4) Lecture, three hours. Requisites: course 100 or 200A, or Public Health 200A and 200B. Ascertainment of infection, transmission, and epidemiological parameters rather than clinical and pathological aspects. Specific diseases discussed in depth to illustrate epidemiologic principles. S/U or letter grading.

M226. Global Health Measures for Biological Emergencies. (4) (Same as Ecology and Evolutionary Biology M226.) Lecture, four hours. Requisite: course 220. Mitigation of bioterrorism falls outside traditional public health. Conceptualization of a bioterrorist event as private education. Because of seriousness of such threats, it is important that individuals trained in public health understand problems and responses. Letter grading.


230. Epidemiology of Sexually Transmitted Diseases. (4) Lecture, four hours. Requisites: course 100 or 200A, or Public Health 200A and 200B. Sexually transmitted diseases; medical/biological aspects, epidemiology and control in developed and developing countries. S/U or letter grading.

231. Principles of Control of Infectious Diseases. (4) Lecture, three hours. Comprehensive study of tools for control of infectious diseases and application of these tools to public health programs. Emphasis on achieving epidemiologic impact on disease reduction, elimination, or eradication. Letter grading.


240. Cardiovascular Epidemiology. (2) Lecture, two hours. Topics include definition, pathogenesis, descriptive epidemiology, magnitude of risk factors, strategies for prevention, lipoprotein metabolism, and epidemiology of diabetes, hypertension, and chronic lung disease. Letter grading.

241. Epidemiology of Obesity and Diabetes. (4) Lecture, three hours. Requisite: course 100 or 200A or Public Health 200A. Overview of epidemiology of obesity and diabetes. Students are exposed to most important research in this area. Focus includes global and regional epidemic of obesity and diabetes, risk factors and complications, classifications and assessment means and methods, characteristics of last epidemiologic research in obesity and diabetes. S/U or letter grading.


244. Research Methods in Cancer Epidemiology. (2) Lecture, two hours. Requisites: courses 100 or 200A, and Biostatistics 100A, or Public Health 200A and 200B. Biologic, quantitative, philosophical, and administrative considerations in epidemiologic cancer research. Hypothesis specification and choice of study design. Uses of descriptive epidemiology, cohort studies, case control studies, Clustering, survival analysis, and cancer control. Identification of subjects and controls. Design of instruments. Sources of bias and confounding. S/U or letter grading.


247. Life Course Epidemiology. (2) Lecture, two hours. Requisites: course 100 or 200A, and Biostatistics 100A, or Public Health 200A and 200B; and Biostatistics 200B, or equivalent. Introduction to concepts and methods for studying life course determinants of health and disease. Consideration of how exposures at one stage of human lifespan influence health outcomes at multiple life stages. Analytical approaches to research on life course determinants of health. S/U or letter grading.

249. Genetic Epidemiology I. (4) Lecture, two hours. Preparation: at least one course in epidemiology, biostatistics, and genetics. Basic concepts in emerging field of genetic epidemiology, with principal focus on genetic study of complex diseases, determining genetic contributions to disease, identifying genes, and characterizing their main effects and interactions with environmental factors. S/U or letter grading.

M254. Nutritional Epidemiology I. (4) (Same as Community Health Sciences M251.) Lecture, two hours; discussion/laboratory exercise, one hour. Preparation: introductory biostatistics and epidemiology courses. Review of all aspects of contemporary nutrition sciences that require application of epidemiologic methods and models in nutrition research. Students learn how to conduct food-borne outbreak investigations to evidence-based regulatory assessment of health claims for foods. Experience in actual world of collecting, analyzing, and interpreting data related to nutrition and health disease outcomes. S/U or letter grading.

260. Environmental Epidemiology. (2 or 4) Lecture, three hours. Requisites: course 100 or 200A, or Public Health 200A and 200B. Epidemiologic methods applied to evaluation of human health consequences of
environmental hazards. Topics include air pollution, pesticides, drinking water contaminants, use of GIS. Review of recently completed environmental studies published in peer-reviewed literature. S/U or letter grading.


265. Epidemiologic Methods in Occupational and Environmental Health. (4) Lecture, three hours. Introduction to methods applied in evaluation of human health consequences of occupational and environmental hazards, including study design, exposure assessment, and statistical techniques commonly encountered in research focused on assessing adverse health effects resulting from occupational and environmental exposures. Topics include clusters, meta-analysis, risk assessment, and policy development. Illustrated by case studies, with focus on techniques to critically evaluate and interpret current literature. Letter grading.

266. Global Health and Tropical Medicine. (4) Lecture, four hours. Introduction to tropical diseases and global health. Goals: (1) understanding the human factors affecting global health, including the current state of global and regional health, and international health organizations; (2) understanding the political and social determinants of health, and their relationship to health on a worldwide scale; (3) understanding the role of infectious and noninfectious diseases in health and disease trends; (4) understanding the role of scientific data in the development and evaluation of health policies; (5) understanding the different methodologies used to collect data and conduct analyses on behaviors studied in epidemiology, and interpreting the limitations of such methodologies; and (6) understanding the role of scientific data in the development and evaluation of health policies. S/U or letter grading.

267. Methodologic Issues in Reproductive Epidemiology. (2) Seminar. Two hours. General discussion of methodologic issues important to epidemiologic studies of reproductive outcomes, including fertility, low birth weight, prematurity, birth defects, pregnancy loss, and perinatal mortality. Approaches to study design and exposure assessment and identification of potential sources of bias illustrated through review of recent literature. S/U or letter grading.

268. Introduction to Pharmacoepidemiology. (2) Lecture, two hours. Requisite: course 100 or 200A, or Public Health 200A and 200B. Pharmacoepidemiology is application of epidemiologic knowledge, reasoning, and methods to study effects and uses of drugs. Survey of primary sources of pharmacoepidemiology in drug development and public health, with historical background of its evolution and projections of future prospects. S/U or letter grading.

270. Behavioral Epidemiology. (4) Lecture, four hours. Lecture, two hours; discussion, one hour. Requisite: course 100 or Public Health 200A and 200B. Introduction to range of methodologic methods used to collect data and conduct analyses on behaviors studied in epidemiology research. Topics include: (1) designs and methods for conducting epidemiologic research in developing countries, including lack of documentation, data collection systems. S/U or letter grading.

272. Social Epidemiology. (4) (Same as Community Health Sciences M272.) Lecture, two hours; discussion, one hour. Requisite: course 100 or Public Health 200A and 200B. Relationship between sociological, cultural, and psychosocial factors in etiology, occurrence and treatment of morbidity and mortality. Emphasis on lifestyles and other socioeconomic factors associated with general susceptibility to disease and subsequent mortality. Letter grading.

273. Responsible Conduct of Research in Global Health. (2) (Same as Public Health M273.) Lecture, two hours. Requisite: Community Health Sciences 200. Introduction to fundamental principles of public health ethics, current ethical procedures, guidelines, and requirements, and ethical issues facing public health professionals working in developing countries.

History of public health issues; unique ethical issues of research in developing countries; ethical implications of informed consent, responsibility to study community, mechanisms of study approval, role of funders, and role and responsibilities of review boards. S/U or letter grading.


293. International HIV/AIDS Seminar. (2) Seminar, two hours. Requisites: courses 200A, 200B, and 200C (or 100) and/or 260. Introduction to demands that go beyond pure science, with focus on issues such as risk communication, potential influence (and ethics) of oversight panels and external review groups on presenting results and conclusions, and interest of government agencies. S/U or letter grading.

295. Seminar: Epidemiology-Cancer. (2) Seminar, two hours. Requisite: course 100 or 200A, or Public Health 200A and 200B. Introduction of basic concepts of cancer epidemiology and review of current epidemiologic research in cancer in recent medical and epidemiologic literature. May be repeated for credit. S/U or letter grading.

375. Teaching Apprentice Practicum. (1 to 4) Seminar, to be arranged. Preparation: apprenticeship under active guidance and supervision of regular faculty member responsible for course instruction at UCLA. May be repeated for credit. S/U grading.

400. Field Studies in Epidemiology. (4) Fieldwork, to be arranged. Field observation and studies in selected community or occupational setting in public health, health promotion, or medical care. Students must file field placement and program training documentation on form available from Student Affairs Office. May not be applied toward MS minimum course requirement; 4 units may be applied toward 44-unit minimum total required for MPH degree. Letter grading.

401. Applied Epidemiologic Analysis. (4) Lecture, three hours. Requisites: course M403, Biostatistics 110BS, Public Health 200A, 200B. Combines lectures, discussions, and laboratory assignments to offer conceptual understanding of analytic methods in epidemiology. Students develop basic proficiency in methods to conduct statistical analysis using epidemiologic data, with expectation that students pursue courses 200A and 200B in second year and develop expertise in methods they will use for their own research. S/U or letter grading.

M403. Computer Management and Analysis of Health Data Using SAS. (4) (Same as Biostatistics M403B.) Lecture, two hours; laboratory, two hours. Introduction to practical issues in management and analysis of health data using SAS programming language. Cross-sectional and longitudinal population-based data sets to be used throughout to illustrate principles of data management and analysis for addressing biomedical and health-related hypotheses. Letter grading.
Adjunct Assistant Professor

Supeena I. Adler, PhD

Scope and Objectives

Ethnomusicology involves the study of all kinds of music from all over the world, using a variety of disciplinary perspectives. The Department of Ethnomusicology, the largest and first of its kind in a U.S. university, offers courses that cover the music of virtually every region of the world and of many ethnic groups in the U.S., as well as courses on popular music and film music. Most courses combine an interest in music as an art form with questions about how musical art and practice relate to other aspects of culture, society, politics, and economics. Courses are also given on the philosophy and aesthetics of music. In addition to lecture courses, the department offers performance ensemble courses in several world and American music traditions. At the undergraduate level, most of the performance courses are open to nonmajors, and many academic courses target nonmajors; prior knowledge of music is not expected or required. The Ethnomusicology Department is aligned with the departments of Music and Musicology and aspires to promote productive collaboration between performance and scholarship, a cross-cultural global understanding of the art of music, and preparatory training for a broad range of careers in music after students graduate.

The undergraduate major in Ethnomusicology emphasizes general world music, performance/composition, public ethnomusicology, and scholarly research. Admission requires an audition/interview. The major provides students with a wide-ranging liberal arts education in music. At its core, this includes (1) comprehensive knowledge of music cultures of the world; (2) understanding of the interrelationship of music, society, and culture; (3) grounding in the basics of Western music theory and musicianship; and (4) the experience of playing in one or several musical ensembles from various traditions around the world.

Beyond the core and emphasis requirements, students in the world music concentration may, through elective courses, prepare for a variety of career goals, including the study of ethnomusicology in graduate school, composing and performing music, working in the music industry, serving society in the nonprofit sector, or becoming a K through 12 music teacher.

At the graduate level, the department offers MA and PhD degrees in Ethnomusicology, with a specialization in systematic musicology or music and anthropology. Both degree programs train students for future university teaching careers, as well as careers in library science and archiving, the music industry, public service, and music technology. The department provides fellowships, teaching assistantships, and research assistantships for qualified students.

Undergraduate Study

The Ethnomusicology major is a designated capstone major. The capstone project is individualized to each student and requires a creative process either through music performance/composition, a research project, or an internship with a self-reflective journal detailing the process. Through that process, students are expected to demonstrate a broad knowledge base and competency in performance, writing, and/or composition and ability to apply knowledge and experience to the specific requirements of the capstone; conceive and successfully complete a project that is expressive of their specific interests and acquired expertise; and display, through written documentation or live presentation, the requisite communication and, in some cases, teamwork required by work in this field.

Ethnomusicology BA

Capstone Major

Learning Outcomes

The Ethnomusicology major has the following learning outcomes:

- Demonstrated broad knowledge and competency in performance, writing, and/or composition
- Demonstrated ability to apply knowledge and experience to capstone requirements
- Conception and successful completion of a project that is individually expressive of the student’s specific interests and acquired expertise
- Written document or live presentation that displays requisite communication and teamwork required by work in the field

Admission

Applicants are reviewed individually, based on a questionnaire, grade-point average, two letters of recommendation, test scores, a personal statement of purpose, and an on-campus interview/audition. Applicants who are unable to travel to UCLA have the option of a Skype interview/audition.

Preparation for the Major

All entering freshmen are required to take the Music Theory Assessment Examination either during New Student Orientation or during zero week of fall quarter. The examination score is used to determine eligibility and placement in first-year music core courses (Ethnomusicology M6A, M6B, M6C, and Music 20A, 20B, 20C). Examination results may require enrollment in Music 3 as a requisite to both Ethnomusicology M6A and Music 20A. Entering transfer students with fewer than 15 units of prior music theory must take the Music Theory Assessment Examination.

Required: Ethnomusicology M6A, M6B, M6C, with grades of C– or better; Music 20A, 20B, 20C, with grades of C– or better; and 12 units of ethnomusicology world music performance organizations (courses 91A through 91Z), private instruction in music (course 92), and/or world music specializations (courses 68A through 68Z).

The Major

Required: Ethnomusicology 175 or 181, 183; 12 units from courses 161A through 161Z, 162, and/or 168A through 168Z; a minimum of eight upper-division ethnomusicology courses (32 to 36 units); and a capstone project in either (1) performance/compo-
sition, (2) public ethnomusicology, (3) scholarly re-
search, or (4) other potential emphasis concepts in
consultation with a faculty adviser.

Performance/Composition Capstone: Students
must fulfill the capstone final project requirement (4
units) through a public recital (performance). Stu-
dents must enroll in Ethnomusicology 199 (2 units)
and pass a recital permission jury. Instrumental and
vocal performers must present a portion of their re-
cital performance, and composers must present ex-
cerpts from their recital scores in front of two fac-
ulty members. Students also enroll in Ethnomusi-
cology 186 (2 units) during the term in which they
perform their recital or their composition(s) are
performed.

Public Ethnomusicology Capstone: Students
must fulfill the capstone internship requirement, which
consists of 8 units of Ethnomusicology 198, in an
institution approved by the faculty sponsor. Stu-
dents must write a final research paper (at least 10
pages) at the completion of each internship.

Scholarly Research Capstone: Students must write a
capstone thesis (25 to 30 pages) and enroll in Ethno-
musicology 199 (2 units minimum) for at least one
term while writing the thesis.

Independent Capstone: In consultation with a fac-
ulty adviser, students can propose capstone proj-
ects in other potential emphasis concepts such as
technologies, film scoring, interactive arts, dance,
and more. Students must enroll in Ethnomusicology
199 (2 units minimum).

Ethnomusicology Minor

The Ethnomusicology minor is designed for stu-
dents who wish to augment their major program
with a group of related courses that provide a sys-
tematic introduction to the study of world music
and performance.

To enter the minor, students must have an overall
grade-point average of 2.0 or better and be in good
academic standing, have completed one lower-di-
vision course with a grade of C or better, and have
successfully completed at least two (2) quarters of
the same lower-division ensemble course (Ethno-
musicology 91A though 91Z).

Optional focus in Iranian music: Students must se-
lect 91L as the lower-division ensemble course.

Required lower-division courses (9-10 units):
Ethnomusicology 5 or M25, and one course from 7,
M12A, M12B, 15, 30, 35S, 40, 45, M50A, M50B, 60, or M73.

Required upper-division courses (22 units):
Ethnomusicology 101; three courses (6 units) from
the same performance ensemble course numbered
from 161A to 161Z; and three upper-division elective
courses from the department. No more than one
course from 195A to 199 may be applied to the mi-
nor.

Optional focus in Iranian music: Ethnomusicology
CI41, CI42, CI43, and three courses (6 units) of CI61.

A minimum of 20 units applied toward the minor re-
quirements must be in addition to units applied to-
ward major requirements or another minor.

Each minor course must be taken for a letter grade,
and students must have an overall grade-point av-
erage of 2.0 or better in the minor. Successful com-
pletion of the minor is indicated on the transcript
and diploma.

Graduate Study

Official, specific degree requirements are detailed in
program requirements for UCLA graduate
degrees, available at the Graduate Division website.
In many cases, more detailed guidelines may be
outlined in announcements, other publications,
and websites of the schools, departments, and
programs.

Graduate Degrees

The Department of Ethnomusicology offers Master
of Arts (MA), Candidate in Philosophy (CPhil), and Doc-
tor of Philosophy (PhD) degrees in Ethnomusicology.

Ethnomusicology

Lower-Division Courses

5. Music Around World. (5) Lecture, four hours; dis-
cussion, one hour; outside study, 10 hours. Overview
of world’s musical traditions by selecting one or two
case studies from each of nine world regions: Pacific,
Asia, Middle East, Africa, Europe, Latin America, and
U.S. and Canada. P/UNP or letter grading.

M6A-M6B-M6C. Introduction to Musician ship. (2–
2–2) Same as Music M6A-M6B-M6C and Musicology
M6A-M6B-M6C.) Laboratory, four hours. Preparation:
placement examination. Course M6A is enforced re-
quisite for M6B, which is enforced requisite to M6C.
Students must receive grade of C- or better to pro-
cceed to next course in sequence. Introduction to mu-
ciusianship through in-depth exploration of basic
common musical elements and training in aural recog-
nition, sight singing, dictation, and keyboard skills.
Focus on topics such as tonal and modal harmony,
rhythm, improvisation, composition, notation, and ear
training to prepare students for later theory courses,
participation in music ensembles, advanced study in
music, and professional careers. Letter grading.

7. Introduction to Music and Culture of Iran. (4)
Lecture, four hours. Examination of Persian music in
historical, social, linguistic, and cultural contexts. Dis-
cussion of musical forms, rules of improvisation,
structure of modal system and rhythmic cycles, reli-
gious music, and modern popular music.

Consideration of interrelationships between musical
genres and other art forms (dance, theater, visual arts,
and literature) and analysis of how these types of
music have intersected with issues of race, class,
gender, religion, ritual, politics, social movements,
and cultural identity. Includes detailed introduction to
musical terms and concepts throughout. Letter grading.

(5-5) (Formerly numbered M110A.) (Same as African
American Studies M110A.) Lecture, four hours; discus-
sion, one hour. Survey of African American music in
Africa and its impact on America; music of 17th
through 19th centuries; minstrelsy and its impact on
representation of blacks in film, television, and theater;
religious music, including hymns, reception, including
black gospel; black music of Caribbean and Central
and South America; and music of black Los Angeles.
M12B. Sociocultural history and survey of African
American music covering blues, pre-1947 jazz styles,
Rhythm ‘n’ blues, soul, funk, disco, hip-hop, and sym-
biotic relationship between recording industry and ef-
ects of cultural politics on black popular music pro-
ductions.

Impact of ethnicity, race, gender, and other social pro-
cesses on American music in late 20th century; use of
and creativity in music to respond to and shape con-
temporary social processes. P/UNP or letter grading.

19. Fiat Lux Freshman Seminars. (1) Seminar, one
hour. Discussion of and critical thinking about topics
of current intellectual importance, taught by faculty
members in their areas of expertise and illuminating
many paths of discovery at UCLA. P/UNP grading.

20A-20B-20C. Musical Cultures of World. (5–5–5)
Lecture, four hours; discussion, one hour; outside
study, 10 hours. Enforced requisite: Music 20C with
grade of C or better. Traditional and popular musics
from many different countries and modern instruments
are to basic ethnomusicological concepts and develop-
ing of listening and analytical skills. Each course may be
taken independently for credit. Letter grading. 20A. Europe
and Africa; 20B. Africa and Near East; 20C. Asia.

M25. Global Pop. (5) (Formerly numbered 25.) (Same
as Global Jazz Studies M25.) Lecture, four hours; dis-
cussion, one hour. Development of world music or
world beat, including its meaning and importance to
temporary culture as well as its history and impact.
P/UNP or letter grading.

30. Music and Media. (5) Lecture, four hours; dis-
cussion, one hour. Exploration of ways music is medi-
ted to people by industry, technologies, and corporations.
Survey of leading theories and methods of media and exploration of
case studies. P/UNP or letter grading.

M35. Blues, Society, and American Culture. (5)
(Formerly numbered 35.) (Same as Global Jazz
Studies M35.) Lecture, four hours; discussion, one
hour. Sociocultural history and survey of blues music
tradition from its roots in West Africa to its emergence
in African American oral culture, with emphasis on
philosophical underpinnings and social and political
impact of blues and its influence on development of
country, jazz, gospel, rhythm and blues, rock, hip-hop
music, and other mediums. P/UNP or letter grading.

40. Music and Religion. (5) Lecture, four hours; dis-
cussion, one hour. Survey of nature, role, and power of
music in religious rituals around world, covering music
and ritual of Hinduism, Buddhism, Judaism, Christi-
anity, and Islam, as well as religious traditions of Na-
tive Americans and syncretic religious practices in
Americas such as African American gospel music,
Brazilian Candomble, Cuban Santeria, and Haitian
voodoo. Letter grading.

45. Music of Bollywood and Beyond. (5) Lecture,
four hours; discussion, one hour; outside study, 10
hours. History and development of South Asian film
scores in their filmic context, especially omnipresent
songs that most distinctively characterize this genre.
P/UNP or letter grading.

M50A-M50B. Jazz in American Culture. (5–5)
(Formerly numbered 50A-50B.) (Same as Global Jazz
Studies M50A-M50B.) Lecture, four hours; discussion,
one hour. Course M50A is not requisite to M50B.
Survey of development of jazz in American culture.
Discussion of different compositional/performance
techniques and approaches that distinguish different
sub-styles of jazz from one another, as well as key his-
torical figures that shaped development of jazz from
its early years through modern jazz. Important histori-
cal social issues (segregation, Depression, World War II,
Civil Rights Movement) that intersect with history of
U.S. and jazz music. P/UNP or letter grading.

M50A. Late 19th Century through 1940s; M50B. 1940s to
Present.

60. J.S. Bach in His World and Ours. (5) Lecture,
four hours; discussion, one hour. Examination of life
and music of J.S. Bach in historical and cultural con-
text of his era through its musical manifestations in
present, including changes in performance styles,
scholarly studies, reception, and contemporary fan
culture. P/UNP or letter grading.

68A-68F. World Music Specializations. (2–2) Ac-
tivity; three hours; outside practice, three hours. Per-
f ormance of specializations in traditional vocal music,
improvised music, and dance. May be repeated for
credit without limitation. P/UNP or letter grading.


Ethnomusicology / 417
Upper-Division Courses

C100. Audiospatial Archiving in 21st Century. (4) Seminar, three hours. Designed for Ethnomusicology majors. Examination of history, present state, and future of audiovisual media with specific focus on music, copyright, contracts, fieldwork, preservation, and access and issues related to technology, space, budgets, and staffing. Concurrently scheduled with course C200. P/NP or letter grading.

101. Introduction to Ethnomusicology. (4) Lecture, four hours. Introduction to history of field of ethnomusicology, basic fieldwork and analysis methods, and current issues in research. Introduction also of career opportunities for ethnomusicology graduates. Letter grading.

M103. Creating Musical Community. (4) Same as Global Jazz Studies M103, Music M103, and Musicology M103. Lecture, four hours; discussion, one hour. Limited to school of music majors. Faculty and students gain greater understanding of diverse musical societies. California, Pacific Northwest, Northern and Southern Plains, Great Lakes/Eastern Woodlands, and Southeastern culture areas included. P/NP or letter grading.

M106A. Contemporary Native American Music. (4) Lecture, three hours; discussion, one hour. Con temporary Native American musical expression, including popular music, rock, hip-hop, indigenous musical genres, and traditional music of North American tribes. Letter grading.

M106B. Contemporary Native American Music. (4) Lecture, three hours; discussion, one hour. Contemporary Native American musical expression, including popular music, rock, hip-hop, indigenous musical genres, and traditional music of North American tribes. Letter grading.

M108A-108B. Music of Latin America. (5–5) Seminar, three hours; discussion, one hour. Course M108A is not required to 108B. Survey of traditional and contemporary musical culture. P/NP or letter grading.

M109. Women in Jazz. (4) Same as African American Studies M119, Gender Studies M119, and Global Jazz Studies M119. Lecture, four hours; discussion, one hour. Sociology of women in jazz and allied musical traditions from 1880s to present. Survey of women vocalists, instrumentalists, composers/arrangers, and producers and impact on development of jazz. P/NP or letter grading.

M111. Ellingtoniana. (4) Same as African American Studies M111 and Global Jazz Studies M111. Lecture, three hours. Music of Duke Ellington, his life, and far-reaching influence of his efforts. Ellington’s musical style, known as Ellingtonia, is one of largest and perhaps most important bodies of music ever produced in U.S. Covers many contributions of other artists who worked with Ellington. P/NP or letter grading.

M115. Musical Aesthetics in Los Angeles. (4) Same as Chicana and Chicano Studies M115. Lecture, four hours; discussion, one hour. Historical and analytical examination of musical expression of Latino peoples who have inhabited present geographical boundaries of U.S. P/NP or letter grading.

M116. Chicana/Latino Music in U.S. (4) Same as Chicana and Chicano Studies M116. Lecture, four hours; discussion, one hour. Historical and analytical examination of musical expression of Latino peoples who have inhabited present geographical boundaries of U.S. P/NP or letter grading.

M117. American Popular Music. (4) Lecture, four hours; discussion, one hour. Survey of history and characteristics of American popular music and its relationship to American culture, with emphasis on 20th-century popular music and its major composers, including comparison between traditional pre-1950 popular music and trends in post-1950 popular music. P/NP or letter grading.

M118. Development of Rock. (5) Lecture, four hours. Examination of historical and stylistic development of rock from 1950s to present, with attention to its socio-cultural and political impact on American society and beyond. P/NP or letter grading.

M119. Cultures of Rock. (5) Same as African American Studies M119 and Global Jazz Studies M119. Lecture, four hours; discussion, one hour. Introduction to development of rap and hip-hop culture, with emphasis on political and philosophical ideologies, gender representation, and influences on cinema and popular culture. P/NP or letter grading.


C126B. Music of Africa. (4) Lecture, four hours; discussion, one hour; outside study, 10 hours. Introduction to music of Africa through general discussion of select topics such as continent and its peoples, function, music, instruments, musical structures and related arts, and contemporary music. P/NP or letter grading.

C130. Culture of Jazz Aesthetics. (4) Same as Anthropology M158 and Global Jazz Studies M130. Lecture, three hours. Recommended requisite: course 20A or 20B or 20C or Anthropology 3 or 4. Aesthetics of jazz as point of view from which jazz is seen as art form in 20th century. Listening and interacting with professional jazz musicians who answer questions and give musical demonstrations. Analytical research on jazz and historical and theoretical approaches that ethnomusicologists have used in their music.
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**142. Music and Culture in Afghanistan and Central Asia.** (4) Lecture, four hours. Survey of music of Afghanistan, Turkmenistan, Tajikistan, Uzbekistan, and Xinjiang, including traditional and popular styles. Examination of modal systems and specific music genres of these regions, and exploration of cultural contexts of musical functions, forms, styles, instruments, and musical philosophies. Consideration of interrelationships between musical genres and other art forms (dance, theater, visual arts, and literature) and analysis of how these types of music have interacted with issues of race, class, gender, religion, ritual, politics, social movements, and cultural identity. Includes detailed introduction to musical terms and concepts throughout. Letter grading.

**143. Musical Traditions around Iran: Baluchistan, Kurdistan, Azerbaijan, and Iraq.** (4) Lecture, four hours. Introduction to selected types of music around Iran with particular attention to Baluchistan, Kurdistan, Azerbaijan, Iraq, and Iran. Study of structures and genres of music in urban and rural communities. Examination of how music-making relates to aspects of current Middle Eastern life such as religious observance, gender expectations, national identity, and process of globalization. Letter grading.

**146. Folk Music of South Asia.** (4) Lecture, three hours; laboratory, one hour. Illustrated survey of some regional genres, styles, and musical instruments found in India and Pakistan, with special reference to religious, social, economic, and cultural context of their occurrence. P/NP or letter grading.

**147. Survey of Classical Music in India.** (4) Lecture, four hours. Examination of melodic, metric, and formal structures, and music in context of its religious, sociocultural, and historical background of country. P/NP or letter grading.

**150. Music and Politics in East Asia.** (4) Lecture, four hours. Limited to Ethnomusicology, Music History, World Arts and Cultures, Chinese, Japanese, Korean, and East Asian Studies majors. Political imperatives have long had direct and often explicit impact on the development of music in East Asia. Examination of interaction of ideology and musical practice in medieval Korea and in contemporary Korea, Japan, Taiwan, and China. Concurrently scheduled with course C155. Letter grading.

**155. Intangible Cultural Heritage Worldwide.** (4) Lecture, three hours. Designed for Ethnomusicology, Music History, World Arts and Cultures and Music majors. Through critical reading of publications by scholars, officials, and individuals involved in intangible cultural heritage policy and practice, examination of history of heritage conservation; concepts of tangible and intangible heritage; pioneering roles of Japan, South Korea, and UNESCO in making intangible cultural heritage focal point of much cultural policy worldwide; tensions among international ideals, nation-state nationalism, regionalism, ethnicity, and indigeneity in cultural heritage policies in different settings; U.S. equivalents to intangible cultural heritage policies and practices in other countries; roles of private individuals, community initiative, and professionalism in cultural preservation schemes; and related concept of sustainability. Concurrently scheduled with course C255. Letter grading.

**156A-156B. Music in China.** (4-4) Letter grading.


**158. Studies in Chinese Instrumental Music.** (4) Lecture, four hours; outside study, eight hours. Survey of Chinese musical instruments and their musical styles, classifications system, specific musical nota- tion, and role in context of Chinese society. P/NP or letter grading.

**159. Music on China’s Periphery.** (4) Lecture, four hours; outside study, eight hours. Designed for under- graduates in Ethnomusicology, Music History, and World Arts and Cultures majors. Survey of music from China’s border regions and neighboring countries: technical musical characteristics and important contextual issues related to traditional and modern styles from Mongolia, Uighurs of Xinjiang, Tibet, Tibet-Burman peoples, Hmong, and indigenous peoples of Taiwan. Concurrently scheduled with course C259. P/NP or letter grading.

**160. Survey of Music in Japan.** (4) Lecture, three hours. Survey of main genres of Japanese traditional music, including Gagaku, Buddhist chant, Biwa music, Koto music, Shonisan music, and music used in various theatrical forms. P/NP or letter grading.


**162. Advanced Composition in Ethnomusicology.** (2–3) Studio, one hour; outside practice, five hours. Preparation: two years of courses 91A through 912 or 912. Limited to Ethnomusicology majors. Advanced private or semiprivate music instruction with distinguished community-based music faculty, that must be arranged by students and approved by course instructor. May be repeated for credit without limitation. Letter grading.

**164. World Music Composition.** (4) Lecture, three hours; outside study, six hours. Requisites: courses 20A, 20B, 20C. Limited to Ethnomusicology majors. Examination in composition using variety of Western and non-Western musical systems. Final project required. Letter grading.

**165. Selected Topics in Composition.** (4) Lecture, four hours; outside study, eight hours. Evaluation of important musical concepts and approaches to enable students to develop greater compositional technique and understanding. Ways composers of jazz, European classical, and other musical genres have successfully approached use of extended compositional forms. Examination of way in which world music traditions have interacted with jazz and other types of music to create new musical languages. Use of concepts, structural paradigms, and inspiration from litera- ture, auditory and visual elements to develop visual compositional methods may be repeated once for credit. Concurrently scheduled with course C270. Letter grading.


**M173. Selected Topics in Music and Religion in Popular Culture.** (5) (Same as Musicology M173) Seminar, two hours; performance, two hours; outside study, three hours. Concurrently scheduled with course M73 lecture. Exploration of connections of music, religion, and popular culture among American Jews and Christians. Credit for both courses M73 and M173 not allowed. Letter grading.


**175. Sociology of Music.** (4) Lecture, four hours. Designed for Ethnomusicology, Music History, and Music majors. Introduction to sociology of music, its principles and basic concepts, and its critical significance for sociomusicological inquiry, including study of popular music, ethnomusicology, and cultural politics of music. P/NP or letter grading.

**178. Aesthetic and Philosophical Foundations in Systematic Musicology.** (4) Seminar; three hours; outside study, nine hours. Limited to Ethnomusicology majors. Comprehensive overview of critical approaches to aesthetics in systematic musicology. Exploration of aesthetics and philosophy of music, sociocultural music, and music criticism. Concurrently scheduled with course C204. Letter grading.

**181. Anthropology of Music.** (4) Lecture, four hours. Designed for Ethnomusicology, Music History, and Anthropology majors. Cross-cultural examination of music in context of social behavior and how musical patterns reflect patterns exhibited in other cultural systems, including economic, religious, and social structure. P/NP or letter grading.

**CM182. Music Industry.** (4) (Same as Music CM182, Musicology CM186, and Music Industry M182) Lecture, four hours; discussion, one hour; outside study, seven hours. Limited to Ethnomusicology, Music History, and Musicology majors. Examination of influence of music industry on way music is created, performed, listened to, evaluated, and used today. Historical approach taken, beginning with music published in 18th century and continuing through development of audio recordings to MTV and popular music today. Concurrently scheduled with course CM288. Letter grading.

**183. Study of Ethnomusicology.** (4) Lecture, three hours; outside study, seven hours. Requisites: courses 91A, 91B, 91C, and 92. Limited to Ethnomusicology majors. Introduction to history of field, basic fieldwork and analysis methods, and current issues in research. Letter grading.

**C184. Public Ethnomusicology.** (4) Lecture, four hours; outside study, eight hours. Designed for Ethnomusicology majors. How music industry functions and how products are created, marketed, and consumed. Techniques of pure research, basic and theoretical in nature, contrasted with those of applied research, practical and policy-oriented in approach. Concurrently scheduled with course C286. Letter grading.

**185. Information Literacy and Research Skills.** (1) Tutorial, one hour. Limited to Ethnomusicology majors. Designed to assist students with becoming information literate. How to locate, identify, and critically evaluate and use print and electronic information effectively and ethically. P/NP grading.

**186. Senior Recital or Project.** (2) Tutorial, one hour. Limited to seniors. Final project for students who, with approval from their faculty advisers, perform one-hour recitals or have their compositions performed in one-hour recital. Organization and arrangement of rehearsal schedule with appropriate accompaniment and preparation of program for performance. Grades are A, B, C, or P. Letter grading. Concurrently scheduled with course C286. Letter grading.

**188. Special Courses in Ethnomusicology.** (4) Lecture, four hours; outside study, eight hours. Selected topics in Ethnomusicology. Schedule of Classes for topics and instructors. May be repeated for credit. P/NP or letter grading.

185SA. Individual Studies for USIE Facilitators. (1) Tutorial, to be arranged. Enforced corequisite: Honors Collegium 101E. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor to discuss USIE seminar topic, contracted credit, and begin preparation of syllabus. Individual contract with faculty mentor required. May not be repeated. Letter grading.

185SB. Individual Studies for USIE Facilitators. (1) Tutorial, to be arranged. Enforced corequisite: course 185SA. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor to finalize course syllabus. Individual contract with faculty mentor required. May not be repeated. Letter grading.

185SC. Individual Studies for USIE Facilitators. (2) Tutorial, to be arranged. Enforced corequisite: course 185SB. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor to finalize course syllabus. Individual contract with faculty mentor required. May not be repeated. Letter grading.

189. Advanced Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to undergraduate lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities. May be repeated with special permission. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

193. Journal Club Seminars: Ethnomusicology. (2) Seminar, two hours: outside study, four hours. Limited to undergraduate students. Reading and discussion of writings on subjects in ethnomusicology. May be repeated for credit. P/NP grading.

195A. Community or Corporate Internships in Ethnomusicology. (2 to 4) Tutorial, six to 12 hours. Limited to juniors/seniors with minimum cumulative 3.0 grade-point average. Internship in supervised setting in community agency or private business. Students meet on regular basis with instructor and provide periodic reports of their experience. May be repeated for maximum of 8 units. Individual contract with supervising faculty member required. P/NP or letter grading.

195B. Community or Corporate Internships in Publ Ethnomusicology. (2 to 4) Tutorial, six to 12 hours. Limited to seniors in public ethnomusicology emphasis. Internship in supervised setting in community agency or private business. Students meet on regular basis with instructor and provide weekly reports of their experience. May be repeated for maximum of 8 units. Individual contract with supervising faculty member required. P/NP or letter grading.

196. World Music Teaching Practicum. (4) Seminar, two hours: fieldwork, three hours: outside study, seven hours. Limited to junior/senior Ethnomusicology majors. Integration of academic work and hands-on teaching. Participation in theoretical discussions of world music education and application of these theories in elementary and secondary music and social studies classrooms. Letter grading.

197E. Individual Studies in Ethnomusicology. (2 to 4) Tutorial, one hour: outside study, five to 11 hours. Preparation: 3.0 grade-point average. Limited to seniors. Individual intensive study in ethnomusicology, with scheduled meetings to be arranged between faculty member and student. Tangible evidence of mastery of subject matter resulting in final research project required. May be repeated for maximum of 8 units. Individual contract required. P/NP or letter grading.

197S. Individual Studies in Systematic Musicology. (2 to 4) Tutorial, one hour: outside study, five to 11 hours. Preparation: 3.0 grade-point average. Limited to seniors. Individual intensive study in systematic musicology, with scheduled meetings to be arranged between faculty member and student. Tangible evidence of mastery of subject matter resulting in final research project required. May be repeated for maximum of 8 units. Individual contract required. P/NP or letter grading.

199. Directed Research or Senior Project in Ethnomusicology. (2 to 4) Tutorial, to be arranged. Limited to junior/senior Ethnomusicology majors. Supervised individual research or investigation under guidance of faculty mentor. Culminating paper or project required. May be repeated for maximum of 8 units. Individual contract required. Letter grading.

Graduate Courses

C200. Audiovisual Archiving in 21st Century. (4) Seminar, three hours. Designed for Ethnomusicology majors. Examination of history, present state, and future of audiovisual archives, with specific focus on ethics, copyright, contracts, fieldwork, preservation, and access and issues related to technology, space, budgets, and staffing. Concurrently scheduled with course C100, S/U or letter grading.

201. History of Ethnomusicology. (4) Seminar, three hours: outside study, nine hours. Limited to graduate ethnomusicology students. Basic literature and schools of thought in field of ethnomusicology from late 19th century to 1980s. Letter grading.


205. Seminar: Information Technology and Research Skills. (4) Seminar, three hours. Limited to graduate ethnomusicology students. Lecture, demonstration, and practice. Basic skills for research on and about music that is essential to student careers as ethnomusicologists, specifically information technology skills, acoustics, and representational tools for nonlinguistic acoustic phenomena. Basic understanding of acoustics, ability to represent sounds in various graphic forms appropriate to them, and ability to locate and organize information sources related to field of ethnomusicology. Letter grading.

206. Integrating Theory with Ethnography. (4) Seminar, three hours. Designed to show how theory and primary research cannot exist without each other, and how various types of theoretical writings and ideas with their ethnographic or historical data. Reading of several recent ethnographies, mostly about music and possibly historical studies, in tandem with theoretical writings that inform arguments of these books. Letter grading.


208. Seminar: Latin American Music. (4) Seminar, three hours. Review of bibliographic, methodological, and philosophical bases of musical research in Latin America, working from both general and specific perspectives. Exploration of research problems and investigations on specific musical cultures and distinct genres of musical expression. S/U or letter grading.


215A-215B. Ethnomusicological Perspectives and Paradigms I, II. (4–4) Seminar, three hours: outside study, nine hours. Limited to graduate ethnomusicology students. Basic literacy and schools of thought in field of ethnomusicology and related social sciences. Letter grading. Late 19th century to 1980s; 215B, 1960s to Present.

216A-216B. Ethnomusicological Methods I, II. (4– 4) Seminar, three hours: outside study, nine hours. Limited to graduate ethnomusicology students. Letter grading. Basic research techniques and perspectives on conducting research and writing it up in ethnomusicology. 216B. Introduction to basic ethnomusicological research techniques and practices in ethno- musicology.


228. Seminar: Balkan Music. (4) Seminar, three hours. Major areas in theory of Balkan music, including song text analysis, music instruments, dance music, rituals and customs, minorities, and ideology. S/U or letter grading.

230. European Musics: Politics, Identities, Nationalisms. (4) Seminar, three hours: outside study, nine hours. Designed for graduate students. European classical, popular, and traditional musics, with particular attention to way in which music mirrors, negotiates, and establishes ideas about and practices of national and other forms of identity, ideas developed in other domains of discourse and practice such as philosophy, history, literature, art, and folklore. Examination of way musicians, ordinary people, and politicians have used music to affect political processes involved in contesting and resolving tensions created between and among these identity formations. Historical period covered primarily from 19th to early 21st century, with examples from all over European continent. Letter grading.

233A-233B-233C. European Traditional and Popular Music. (4–4) Discursive and theoretical investigation of literature on European traditional and popular music, with special attention to modern issues and processes. May be repeated for credit. In Progress (233A, 233B) and letter (233C).

C236B. Music of Africa. (4) Lecture, four hours: outside study, eight hours. Introduction to music of various African cultures and regions. Through readings, lectures, viewing of films, and analysis of music, students gain greater understanding of diverse musical traditions found on African continent and become more cognizant of contributions that people of Africa have made to world music. Concurrently scheduled with course C136B. Letter grading.


C241. Music of Turkey and Iran. (4) Seminar, three hours. Limited to graduate ethnomusicology students. Comparative study of music of Iran and other related areas, including Turkey, with particular reference to their historical and cultural background, sources on music theory and aesthetics, instruments, style, technique of improvisation, and contemporary practice. Concurrent participation in Near East performance ensemble (course 91N or 161N) required. Concurrently scheduled with course C141. S/U or letter grading.

248. Classical Music of India. (4) Lecture, three hours; outside study, nine hours. Requisite: course 146 or 147G. Study of history, theory, and practice of north and south Indian classical music. Emphasis on music theory and technical theory and analysis of present-day forms, styles, techniques, and musical instruments. Concurrent participation in Indian performance group (course 91F) required. S/U or letter grading.

250. Music and Politics in East Asia. (4) Lecture, four hours. Designed for graduate students. Political implications have long had direct and often explicit impact on music sound and context in East Asia. Examination of interaction of ideology and musical practice in medieval Korea and in contemporary Korea, Japan, Taiwan, and China. Concurrently scheduled with course C150. Letter grading.

251. Music of Indonesia. (4) Lecture, three hours; outside study, nine hours. Requisite: course 20C. Emphasis on music and related performing arts of Java, Bali, and other Indonesian islands. Concurrent participation in performance group (course 91B or 91H) required. S/U or letter grading.


255. Intangible Cultural Heritage Worldwide. (4) Lecture, three hours. Designed for ethnomusicology, music history, and world arts and cultures graduate students. Through critical reading of publications by scholars, officials, and culture-bearers involved in intangible cultural heritage policy and practice, examination of history of heritage conservation; concepts of tangibility and intangibility; pioneering role played by Japan, South Korea, and UNESCO in making intangible cultural heritage focal point of much cultural policy worldwide; tensions among international ideals, nation-building, regionalism, ethnicity, and the use of indigenous in creating intangible cultural heritage policies in different settings; U.S. equivalents to intangible cultural heritage policies and practices in other countries; roles of academicals, community leaders, and professional organizations in cultural preservation schemes; and related concept of sustainability. Concurrently scheduled with course C155. Letter grading.


C259. Music on China's Periphery. (4) Lecture, four hours; outside study, eight hours. Designed for graduate Ethnomusicology, Music, Musicology, and World Arts and Cultures majors. Survey of musics from China's close neighbors: countries with strong technical musical characteristics and important contextual issues related to traditional and modern styles from Mongolia, Uighurs of Xinjiang, Tibet, Tibet-Burman, Xylophones, and indigenous peoples of Taiwan. Concurrently scheduled with course C159. S/U or letter grading.

M261. Gender and Music in Cross-Cultural Perspective. (4) (Same as Gender Studies M261.) Seminar, three hours. Designed to foster in-depth understanding of gender in study of music as culture. Topics range from ethnomusicology of gender and sexuality, (de)codification of musical messages of resistance, and gender representation to gendered politics via musical production. S/U or letter grading.

262. Musical Ethnicity. (4) Seminar, three hours; outside study, nine hours. Examination of selected book-length ethnographies, most published in last 10 years, as both literary genre and research procedure. S/U or letter grading.

263. Perspectives in Popular Music Research. (4) Seminar, three hours. Investigation of cross-cultural paradigms, issues, and research models of popular musical music, with emphasis on world music genres, local/global markets, mass mediation, appropriation and aetheticization, forms and impacts of popular music studies on ethnomusicology. Letter grading.

264. Urbanism and Music. (4) Seminar, three hours; outside study, nine hours. Theoretical and methodological issues in study of city as cultural entity that affects and is affected by music making, S/U or letter grading.

265. Religion and Music. (4) Seminar, three hours; outside study, nine hours. Cross-cultural examination of role of musical expression in divine, sacred, and artistic expression in world's religions. S/U or letter grading.

266. Charles Seeger's Life and Thought. (4) Seminar, three hours; outside study, nine hours. Charles Seeger's (1888 to 1979) major and influences on three fields he helped to found (ethnomusicology, systematic musicology, historical musicology), as well as his interest in applied ethnomusicology and American composition in 20th century. S/U or letter grading.

267. Music and Ecstasy. (3) Seminar, three hours; outside study, nine hours. Relationship between music and consciousness in different world cultures and role music plays in ecstatic experiences. Phenomena include trance, spirit possession, shamanism, religious ecstasy, mysticism, and artistic inspiration. S/U or letter grading.

268. Modernity and Musical Experience. (Seminar, three hours; outside study, ten hours. Limited to graduate students. Examination of possibilities for subject-centered musical ethnomusicology to account for fragmented musical experience in modern world. Consideration of local and world musics in relation to modernity, postmodernity, globalization, notions of self and subject, power, and media images. Letter grading.

C270. Selected Topics in Composition. (4) Lecture, two hours; outside study, eight hours. Limited to graduate students. Examination of possibilities for student-centered musical ethnomusicology to account for fragmented musical experience in modern world. Consideration of local and world musics in relation to modernity, postmodernity, globalization, notions of self and subject, power, and media images. Letter grading.

271. Seminar: Acoustics of Music. (3) Seminar, three hours. Requisite: course 170. Selected topics in acoustics, including laboratory methodologies and practical applications. Topics include Western and non-Western instruments, tuning systems, psycho-acoustics, and methods of spectral analysis. May be repeated once for credit. Concurrently scheduled with course C165. Letter grading.

272. Seminar: Phonetics. (3) Seminar, three hours. Requisite: course 170. Selected topics in phonetics, including laboratory methodologies and practical applications. Topics include Western and non-Western phonetics. May be repeated once for credit. S/U or letter grading.

273. Seminar: Psychology of Music. (3) Seminar, three hours. Requisite: course 170. Selected topics in psychology of music, including recent findings in brain research, musical perception, learning, cognition, memory, therapy, affect, meaning, and measurement. May be repeated once for credit. S/U or letter grading.

275. Seminar: Aesthetics of Music. (3) Seminar, three hours. Specific topics in Western and non-Western aesthetic thought, including value, meaning, semiotics, historical development of theoretical perspectives and critical theory, and interpretation. May be repeated once for credit. S/U or letter grading.

274. Seminar: Systematic Musicology. (4) Seminar, three hours. Requisite: course 170G. Exploration of specific topics in general field of systematic musicology covering disciplines such as anthropology, aesthetics, music perception, philosophy, organology, sociology and experimental music. May be repeated for credit. S/U or letter grading.

275. Seminar: Teaching World Music and Music Appreciation. (4) Seminar, three hours. Preparation: two ethnomusicology courses or concurrent enrolment in courses 267, 286, or 290. Varies in focus from ethnomusicology and musicology graduate students. Practical overview of current pedagogical philosophies and techniques used in teaching introductory music survey courses, specifically music appreciation and general world music. Letter grading.


285. Seminar: Comparative Music Theory. (4) Seminar, three hours. Comparative study of codified music theories of select cultures—Western and non-Western—considered in themselves and as expressions of their societies. Theory considered as science of music; its place between cultural values and artistic practice in different civilizations. S/U or letter grading.

C286. Public Ethnomusicology. (4) Lecture, four hours; outside study, eight hours. Designed for Ethnomusicology majors. How musics are created, marketed, and consumed. Techniques of pure research, basic and theoretical in nature, contrasted with those of applied research, practical, and policy-oriented perspectives. Concurrently scheduled with course C184. Letter grading.


CM288. Music Industry. (4) (Same as Music CM282 and Musicology CM282.) Lecture, four hours; discussion, one hour; outside study, eight hours. Limited to Ethnomusicology, Music, and Musicology majors. Examination of influence of music industry on way music is created, performed, listened to, evaluated, and used today. Historical approach taken, beginning with music published in 18th century and continuing through development of audio recordings to MTV and popular music today. Concurrently scheduled with course CM182. Letter grading.

289. Research Design and Grant Writing in Ethnomusicology. (4) Seminar, three hours; outside study, nine hours. Design of dissertation research proposal, locating and applying for dissertation fieldwork grants, organizing and presenting advances academic proposals with sophisticated methods and professional writing skills. S/U or letter grading.


291. Ethnomusicology Colloquium Series. (1) Research group meeting, one hour. Limited to graduate ethnomusicology students. Introduction to new trends and issues in discipline of ethnomusicology in effort to
strenthen and stimulate intellectual community within department. Topics vary from term to term and consist of presentations by guest lecturers, faculty members, and students. May be repeated for credit. S/U grading.

292A-292Z. Seminars: Special Topics in Ethnomusicology. (4 each) Seminar, four hours. Designed for graduate students. Utilization of special interests and expertise of regular and visiting faculty; topics of current interest presently offered in ethnomusicology program. S/U or letter grading.

375. Teaching Apprentice Practicum. (1 to 4) Seminar, to be arranged. Preparation: apprenticeship under active guidance and supervision of regular faculty member responsible for curriculum and instruction at UCLA. May be repeated for credit. S/U grading.

495A. Teaching Apprentice Practicum. (2) Eight weekly two-hour seminar sessions, plus intensive training session during Fall Quarter registration week. Preparation: appointment as teaching apprentice in Ethnomusicology Department. Required of all new teaching apprentices. Special course dealing with problems and practices of teaching ethnomusicology and systematic musicology at college level. May not be applied toward degree requirements. S/U grading.

495B. Teaching with Technology. (2) Seminar, three hours; outside study, three hours. Limited to graduate ethnomusicology students. Training in presentation, spreadsheet, web design, and digitization software, and its application in classroom and in preparation of electronic teaching portfolio. S/U grading.

596. Directed Individual Studies. (2, 4, or 6) Tutorial, to be arranged. Only 4 units may be applied toward MA minimum course requirements. S/U or letter grading.

597. Preparation for Master’s Comprehensive Examination or PhD Qualifying Examinations. (2 or 4) Tutorial, to be arranged. May be repeated for credit. S/U grading.

598. Guidance of MA Thesis. (4, 8, or 12) Tutorial, to be arranged. May be repeated for credit. S/U grading.

599. Guidance of PhD Dissertation. (4, 8, or 12) Tutorial, to be arranged. May be repeated for credit. S/U grading.

European Studies
See International and Area Studies

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Pamela Davis, MD, Director, Northridge Hospital

Lynee M. Diamond, MD, Director, Pomona Valley
Kathleen Dor, MD, Director, Kaiser-Woodland Hills
Theresa Nevarez, MBA, Director, Harbor-UCLA
Carol A. Stewart, MD, Director, Clinica Sierra Vista
John K. Su, MD, Director, Kaiser-Sunset

Scope and Objectives
The Department of Family Medicine provides all students with a basic introduction to family-centered care in both the inpatient and ambulatory settings. During the basic clerkship, students develop (1) an appreciation of the breadth and scope of family medicine, (2) a basic knowledge in the broad content areas of family medicine, and (3) fundamental clinical skills appropriate to family medicine, including the coordination and management of patients with multiple chronic diseases. The overall goal is to provide students with the opportunity to gain an understanding and appreciation of the central role of family physicians in the healthcare system, and to offer advanced clinical training for those students interested in pursuing careers in family medicine. Further, the basic curriculum includes an overview of healthcare issues facing underserved and immigrant populations in urban America.

Family medicine faculty members are in leadership roles in the teaching curriculum and in the Primary Care College. All first-year students are assigned to clerkship in the third year, which is offered at over 10 teaching sites. The department offers paid six-week electives known as Summer Research Fellowships after the first year of medical school. This program teaches students how to collect data and submit applications for federal designation as underserved areas. It includes journal article reviews on healthcare reform and disparities, as well as the geographic distribution of physicians and the shortages in primary care physicians in South Los Angeles. Students can also participate in a clinical experience. At the beginning of the project the students present their work on a poster, joining approximately 80 classmates doing other summer projects supported by the dean’s office.

For more details on the Department of Family Medicine, see the department website.

Family Medicine
Lower-Division Courses
19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

99. Student Research Program. (1 to 2) Tutorial (supervised research or other scholarly work), three hours per week per unit. Entry-level research for lower-division students under guidance of faculty mentor. Students must be in good academic standing and enrolled in minimum of 12 units (excluding this course). Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP grading.

Upper-Division Course
199. Directed Research in Family Medicine. (2 to 8) Tutorial, two hours. Limited to juniors/seniors. Supervised individual research or investigation under guidance of faculty mentor. Culminating paper required. May be repeated for credit. Individual contract required. P/NP or letter grading.

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Kriss Ravetto-Baglioli, PhD
Nancy Richardson, MFA
Teri E. Schwartz, MA
Charles E. Sheetz, MFA
Becky J. Smith, MA
Amy Villarejo, PhD

Professors Emeriti
Jerzy Antczak, MA
Janet L. Bergstrom, PhD
Nicholas K. Browne, EdD
John T. Caldwell, PhD
Gyula Gazdag, MFA
Marina Goldovskaya, PhD
A.P. Gonzalez, MA
Lewis R. Hunter, MA
Stephen D. Mamber, PhD
Barbara Marks
Celia L. Mercer, MFA
Robert Rosen, MA
Vivian Sobchack, PhD
Howard Suber, PhD

Associate Professors
Shelleen M. Greene, PhD
Kristy M. Guevara-Flanagan, MFA
Arne O. Lunde, PhD
Ellen C. Scott, PhD
Jasmine N. Trice, PhD
C. Fabian Wagnmister, MFA

Assistant Professors
Rory M. Kelly, MFA
Veronica A. Paredes, PhD
Lecturers SOE
Harold L. Ackerman, MA, Emeritus
Mark McCarthy, MA, Emeritus

Lecturers
William J. Armburski
Jenny A. Beck
Jessica C. Bendinger
Christopher W. Borey, MFA
Karen M. Bowdre, PhD
David E. Boyle
Vincent M. Brook, PhD
Norman L. Buckley
Constance M. Burge
Paul J. Cannon
Heather L. Collins, MFA
Aruna Ekapayale, PhD
Jane N. Evans
Stephen Farber, MA
Melissa Finelli, MFA
Pierre L. Finn
Alexander S. Franklin, MFA
Cristina M. Frias
George E. Gary, MFA
Jill L. Goldsmith, JD, MFA
Nicholas E. Griffith, BA
Cecelia Hall
Rhonda Hammer, PhD
Frederick W. Helm
Katherine Huang, MA
Catherine A. (Kate) Isenberg, MFA
Stephanie L. James, BFA
Mali H. Kinberg, PhD
Carolin Kirchner
Timothy D. Kirkman, MA
Jonathan A. Kurtz, PhD
Neil Landau, BA
Sally Lapidus
Valerie M. Lettera, MFA
Robert J. Levy, BA
Hans-Martin Liebing, MFA
Susan M. Littenberg, BA
Gregory S. Malins
David M. Maquiling, BFA
Eric Marin, MA
Daniel J. McDermott, BA
Zachary D. Medow
Tracy M. Mercer
Howard D. Meyers
Nicholas P. Moceri
Joshua J. Mon
Paul Nagle, BA
Thomas A. Nunan III, BA
Jules Nurrish, MFA
Deland Nuse
Alexander B. O’Flinn, MFA
Daniel L. Olivas
Martin D. Olstein
Sjoerd Oostrik
Sune Behar Parker, MFA
Natalie R. Powell
Michael T. Puopolo, MFA
Richard K. Quade
Richard I. Rayner
Mark E. Rosman, BA
Leander T. Sales
Benjamin N. Sampson
Elisabeth Seldes Anacone, MA
Sudeep Sharma
Robert N. Ski
Karen L. Smalley, MFA
Charles H. Solomon
Kit Steinkellner
James A. Strain, MA, MFA
John J. Strauss
Jason J. Tomaric
Reed R. Van Dyk
Pamela R. Veasey
Patricia M. Verrucchi
Glenn V. Vipuu
Linda Voorhees

Douglas A. Ward
Bernard Weiser
Lizzy A. Weiss, MA
C.E. Williams, Jr.
Glenn P. Williamson, BA
Holly Willis, PhD
Brandon Wilson, MFA
Bryan G. Wuest, PhD
John W. Yoon, MFA
Kris T. Young, MFA

Associate Professor
April Shawhan
John W. Simmons, MFA

Visiting Professor
Peter Guber, LLM

Scope and Objectives
The purpose of the Department of Film, Television, and Digital Media is to develop in its students a scholarly, creative, and professional approach to film, television, and digital art forms. The aim of the department is to train graduates who will eventually make original contributions in their chosen field.

The department offers an undergraduate minor in Film, Television, and Digital Media; an undergraduate program leading to the Bachelor of Arts in Film and Television; and graduate programs leading to the Master of Arts, Master of Fine Arts, and PhD degrees in Film and Television.

For current or specific information about the programs and faculty members, see the department website.

Undergraduate Study
The Film and Television major is a designated capstone major. Undergraduate students are required to complete one departmentally sponsored internship course as well as coursework related to the senior thesis concentration area. All courses, including capstone senior thesis projects, involve workshopping individual projects. Group participation in the creation and production of each student’s project is core to the curriculum. Specific student learning objectives vary based on concentration area.

Film and Television BA

Capstone Major
The undergraduate Film and Television major encourages development of a personal vision that incorporates creative, practical, intellectual, and aesthetic values. Within the context of a liberal arts education, the program provides a broad background in the field and in the diversity of film and television practice, including courses in history and theory, critical thinking, animation, screenwriting, and the fundamentals of film, video, and television production.

Learning Outcomes
The Film and Television major has the following learning outcomes:
- Mastery of fundamentals of preproduction, production, and postproduction of film, television, and digital media
- Demonstrated advanced understanding of one or more areas of study in cinema and media studies, filmmaking, screenwriting, animation, digital media, and producing

Admission
Students are admitted for fall quarter only. Admission is highly competitive, and only a limited number of students can be accepted each year. In addition to the UC Application for Admission and Scholarships, freshman and transfer applicants must submit a School of Theater, Film, and Television supplemental application. For information about the supplemental application, see the major website.

Transfer Students
Transfer applicants to the Film and Television major with 90 or more units must meet UCLA transfer requirements and, before arriving at UCLA, must complete the School of Theater, Film, and Television general education requirements by either (1) taking college courses that satisfy the school general education requirements or (2) completing the Intersegmental General Education Curriculum (IGETC) at a California community college or (3) achieving UC reciprocity through completion of general education requirements at another UC campus while a student there.

In addition to the UC Application for Admission and Scholarships, transfer applicants must submit a School of Theater, Film, and Television supplemental application. For information about the supplemental application, see the major website. Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

Preparation for the Major
Required: Film and Television 4, 6A, 10A, 33, 51, 84A, and one course from Theater 10, 15, 20, 28A, 28B, 28C, or 30.

The Major
Required: Film and Television 101A, 106B or 106C, 134, 150, 154, 155, 163; one cinema and media studies elective from 107, 108, 109, M111, 112, 113, M117, or 122N; one capstone departmentally sponsored internship (course 195) taken concurrently with course 194; and a senior concentration (20 units) of advanced film coursework selected from among any one or more of the following areas of study, including at least two courses from within one area:
- Screenwriting: Film and Television C135A, C135B, C135C.
- Producing: Film and Television C146, C147, 183A, 183B, 183C, 184B.
- Animation: Film and Television C181A, C181B, C181C.

Digital Media: Film and Television C142, C144, C145, C146.
Graduate Study
Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Division website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Graduate Degrees
The Department of Film, Television, and Digital Media offers Master of Arts (MA), Master of Fine Arts (MFA), Candidate in Philosophy (CPHil), and Doctor of Philosophy (PhD) degrees in Film and Television.

Film and Television
Lower-Division Courses
1A-1B-1C. Freshman Symposium. (1—1—1) Laboratory, three hours. Course 1A is enforced requisite to 1B, which is enforced requisite to 1C. Limited to Film and Television majors. Structured forum in which freshmen meet on regular basis to discuss curricular issues, meet with faculty members from department, and have exposure to array of guest speakers from media industry.

4. Introduction to Art and Technique of Filmmaking. (5) Formerly numbered 122B.) Lecture, four hours; discussion, one hour. Students acquire understanding of practical and aesthetic challenges under taken by artists and professionals in making of motion pictures and television. Examination of film as both art and industry; storytelling, sound and visual design, casting and performance, editing, financing, advertising, and distribution. Exploration of American and world cinema from filmmaker's perspective. Honoring of analytical skills and development of critical vocabulary for study of filmmaking as technical, artistic, and cultural phenomenon. P/NP or letter grading.

6A. History of American Motion Picture. (6) Lecture/screenings, eight hours; discussion, one hour. Historical and critical survey, with examples, of American motion picture both as developing art form and as medium of mass communication. Letter grading.

10A. American Television History. (5) Lecture/screenings, five hours; discussion, one hour. Critical survey of American television history from its inception to present. Examination of program forms, industrial paradigms, social trends, and culture. Starting with television's hybrid origins in radio, theater, and film, contextualization, viewing, and discussion of key television shows, as well as Hollywood films that comment on radio and television. Consideration of television programs and series in terms of sociocultural issues (consumerism, lifestyle, gender, race, national identity) and industrial practice (programming, policy, regulation, business). Letter grading.

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

33. Introductory Screenwriting. (4) Lecture, three hours; discussion, one hour. Introduction to screenwriting: the essentials of the medium, the structure of the screenplay, and the Metrics of the screenwriting process. Students are introduced to the film industry and learn about the roles of agents, producers, directors, writers, and actors. P/NP grading.

560. Introduction to Visual Culture. (5) Formerly English 650C) Lecture, three hours; discussion, one hour. An introduction to the study of visual culture from a historical and disciplinary perspective. The course explores how visual images, narrative films, influence contemporary aesthetics, politics, and knowledge. P/NP or letter grading.

51. Digital Media Studies. (5) Lecture, three hours; laboratory, one hour. Introduction to history, theory, and authoring skills of digital media, art, and culture. P/NP or letter grading.

72. Production Practice in Film, Television, and Digital Media. (2 to 4) Lecture, three hours; laboratory, three hours. Exploration of research, analysis, and conceptualization of contemporary and labo- ratory experience in one or more various aspects of contemporary production and postproduction practices for entertainment media, including theater, film, video, and digital media. May be repeated for maximum of 8 units. Letter grading.

57. Lighting for Film and Television. (2) Laboratory, 10 hours. Offered as one-week intensive course. Introduction to concepts and practice of lighting for film through discussion and intensive hands-on laboratory experience for directors of photography, camera operators, gaffers, key grips, assistant camera, and grips. Crew rotation/changes per camera setup. Review of lighting. Offered in summer only. Letter grading.

84A. Overview of Contemporary Film Industry. (4) Lecture, three hours; discussion, one hour. Examination of evolving economic structures and business practices in contemporary Hollywood film industry, with emphasis on operation of independent distribution companies, their development, marketing, and distribution systems, and their relationship to independent producers, talent, and agencies. Letter grading.

89. Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to lower-divi sion lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

99. Student Research Program. (1 to 2) Tutorial (su pervised research or other scholarly work), three hours per week per unit. Entry-level research for lower-divi sion students under guidance of faculty mentor. Students must be in good academic standing and enrolled in minimum of 12 units (excluding this course). Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP grading.

Upper-Division Courses
101A. Junior Symposium. (1) Laboratory, three hours. Course 101A is enforced requisite to 101B, which is enforced requisite to 101C. Limited to Film and Television majors. Structured forum in which juniors meet on regular basis to discuss curricular issues, meet with faculty members, and have exposure to array of guest speakers from within film industry. Letter grading.

102A-102B-102C. Senior Symposium. (1—1—1) Laboratory, three hours. Enforced requisite: course 101A. Course 102A is enforced requisite to 102B, which is enforced requisite to 102C. Limited to Film and Television majors. Structured forum in which seniors meet on regular basis to discuss curricular issues, meet with faculty members, and have exposure to array of guest speakers from within film and television industry. Letter grading.

106B. History of European Motion Picture. (6) Lecture/screenings, eight hours; discussion, one hour. Historical and critical survey, with examples, of European motion picture both as developing art form and as medium of mass communication. Letter grading.


107. Experimental Film. (6) Lecture/screenings, eight hours; discussion, one hour. Study and analysis of unconventional developments in motion pictures. P/NP or letter grading.

109. Advanced Topics in Documentary: New Docu- mentary Forms. (4) Lecture, three hours; discussion, one hour; screenings, three hours. Examination of today’s documentary modes of representation and genres focusing on rise and diversification of nonfic- tion modes since new millennium. From short form to series, documentary series interactive, critics of sourced to animated, study of new documentary forms and platforms as situated within complex media environment. Exploration of theoretical models through which documentaries can be understood, questioned, and critically approached. Letter grading.

M111. Women and Film. (6) (Same as Gender Studies M111.) Lecture, eight hours; discussion, one hour. Historical issues and critical approaches to women and cinema that may include authorship, stardom, female genres, and images of women in Hol- lywood cinema, alternative cinema, and independent cinema from silent era to present. Letter grading.

112. Film and Social Change. (6) Lecture/screen- ings, eight hours; discussion, one hour. Development of documentary and dramatic films in relation to and as force in social development. Letter grading.

113. Film Authors. (5) Lecture/screenings, five hours; discussion, one hour. In-depth study of specific film author and influence on film industry. P/NP or letter grading.

114. Film Genres. (5) Lecture/screenings, five hours; discussion, one hour. Study of specific film genre (e.g., Western, gangster cycle, musical, epic, comedy, social drama). P/NP or letter grading.

M117. Chicano in Film/Video. (5) (Same as Chicana and Chicano Studies M117.) Lecture/screenings, five hours; discussion, one hour. Goal is to gain nuanced understanding of Chicano cinema as political, socio- economic, and aesthetic practice, and representation of Mexican Americans and Chi- canos in four Hollywood genres—silent greaser films, social problem films, Westerns, and gang films—that are major genres that account for films about or with Mexican Americans produced between 1908 and 1980. Examination of recent Chicano-produced films that subvert or signify on these Hollywood genres, including El Norte, La Bamba, and Born in East L.A. Consideration of shorter, more experi- mental work that critiques Hollywood image of Chi- canos. Guest speakers include both pioneer and up- and-coming Chicano and Chicana filmmakers and scholars. P/NP or letter grading.


122D. Film Editing: Overview of History, Technique, and Practice. (4) Lecture, three hours; discussion, two hours; screenings, two hours. Examination of creative process in theater, film, and television, with course C424. Letter grading.

122E. Digital Cinematography. (4) Lecture, three hours. Lectures, screenings, and demonstrations, study of principles of digital cinematography. How tools and techniques affect visual storytelling process. Topics include formats, aspect ratios, cameras, lenses, special effects, internal menu picture manipu- lation, lighting, composition, coverage, high definition, digital exhibition, filtration, multiple-camera shooting. P/NP or letter grading.

122F. Writing for Animation Series. (5) Lecture, three hours. Introduction to craft and business of writing an- imation for television. Overview of history of animation produced specifically for this medium, along with its- tructive formats. Business model has changed radically over past five decades, as have types of shows that have been created. Designed to put shows in historical context, with eye toward industry is heading given changes in technology and (and growing) scrutiny of outside forces such as cor- porations and FCC. Letter grading.

122J. Disney Feature: Then and Now. (5) Lecture, three hours; discussion, three hours. Study and anal- ysis of Disney’s animation and drama. How Disney’s animated features have dominated until re- cently and ramifications of this dominance on anima- tion and society. Letter grading.

122M. Film and History of Directing. (4) Lecture, three hours. Through discussions, screenings, demon- strations, and guests, exploration of script, previsual- ization, directing actors, directing camera coverage in relationship to story, practical on-set directing, and di- recting for camera. P/NP or letter grading.

122N. History of Animation in American Film and Television. (5) Lecture, six hours. Survey of film and television animation in America from its precinema origins to recent films of Pixar, DreamWorks, Ghibli, and others. Place of animation in pop culture, racial imagery and ethnicity stereotypes, growth of art form, and how it re- reflects American society. P/NP or letter grading.

M124. Sex, Race, and Difference in Transnational Film. (5) (Same as M124D, Lect.) Lecture, three hours; discussion, one hour. Drawing on feminist media studies, training of students in media literacy so they acquire necessary skills to critically interrogate film and media texts, students learn how film and filmic media can be used to examine the representation of marginalized and minority groups. P/NP or letter grading.

123. Acting for Film and Television. (4) Studio, six hours. Projects in acting for television, video, and film. May be repeated twice for credit. P/NP or letter grading.


CM129. Contemporary Topics in Theater, Film, and Television. (2) (Same as Theater CM129.) Lecture, two hours; screenings, two hours. Limited to junior/se- nior and graduate theater/film and television students. Examination of creative process in theater, film, and television, with consideration of writing, direction, pro- duction, and performance. Overview of individual con- tributions to special investigations of distinctiveness and interrelations among these arts. Indi- vidual units include participation of leading members of theater, film, and television professions. May be re- peated twice for credit. Concurrently scheduled with course CM229. P/NP or letter grading.

131. Introduction to Television Writing. (6 or 8) Lecture, three hours. Introduction to television pilot format, covering style and content, as well as principles behind network role in network and cable, and digital platforms. Students write series outline and first act of original pilot. Offered in summer only. Letter grading.

133. Intermediate Television Writing Workshop. (4) Lecture, three hours. Elective for students who have completed the intermediate writing course. P/NP or letter grading.

C135A-135B-135C. Advanced Screenwriting Work- shops. (6–6–8) Laboratory, three hours. Requisite: course 134. Lecture, three hours. Recommended requisite: course 131. Ex- amination of one-hour drama and dramedy formats, covering style, content, and structural analysis. Re- view of principles behind network needs and how pilots- lots are chosen across broadcast, cable and digital platforms. Students write series outline and first draft of original pilot. Offered in summer only. Letter grading.


135A-135B-135C. Advanced Screenwriting Work- shops. (6–6–8) Laboratory, three hours. Requisite: course 134. Course 135A is requisite to 135B, which is requisite to 135C. For 135A and 135C: limited to Film and Television majors and designed for seniors. In courses in film and television, students write a full- length script for film or television, or half-hour story. Offered in summer only. Letter grading.

140. Interactive Expression. (4) Lecture, six hours. Introduction to interactive television and new forms of interactive media, with emphasis on uniqueness of computer- mediated expression. Letter grading.

C142. Digital Imagery and Visualization. (4) Lecture, three hours; laboratory, three hours. Introductory hands-on investigation of techniques of digital still im- aging and aesthetics of digital image, in context of ex- amining dynamics of cultural constructions and visual culture of students concept their own digital image visualizations. May be repeated once for credit. Concurrently scheduled with course C242. Letter grading.


C144. Creative Authoring for World Wide Web. (4) Lecture, three hours; laboratory, three hours. Exploration of creative aspects of World Wide Web as media for personal/collective expression. Students pro- duce Web works and serve them online. Contextual- ization of medium by looking at its history, embedded ideology, and sociopolitical consequences. May be re- peated once for credit. Concurrently scheduled with course C244. Letter grading.

C145. Creative Authoring for World Wide Web. (4) Lecture, three hours; laboratory, three hours. Exploration of creative aspects of World Wide Web as me- dia for personal/collective expression. Students pro- duce Web works and serve them online. Contextual- ization of medium by looking at its history, embedded ideology, and sociopolitical consequences. May be re- peated once for credit. Concurrently scheduled with course C245. Letter grading.

146. Art and Practice of Motion Picture Producing. (4) Lecture, three hours; discussion, one hour. Explora- tion of role of producer as both artist and business person. Comparative analysis of screenplays and complete films. Emphasis on assembly of creative team and analysis of industrial context, both indepen- dent and studio. Screenings viewed outside of class and on reserve at Powell Library. Letter grading.

C147. Planning Independent Feature Production. (4) Lecture, three hours; laboratory, three hours. Analysis of procedure, problems, and budgets in planning fea- ture-length script for film and television production, with emphasis on role of producer and creative organi- zational techniques of production. Concurrently sched- uled with course C247. Letter grading.
C148. Advanced Digital Media Workshop. (4) Laboratory, two hours; discussion, four hours. Designed for students with previous laboratory course experience to provide opportunity to create larger-scale digital media works with advanced software tools and techniques in a self-directed, creative workshop environment. May be repeated twice for credit. Concurrently scheduled with course C248A. Letter grading.

C158. Digital Workflow. (2 to 4) Lecture, three hours; laboratory, two hours. Requisites: courses 52, 185. Limited to departmental majors. Through demonstrations, discussions, and computer laboratory assignments, demystification of ever-changing world of digital workflow. Students plan, schedule, and budget their overall workflow in preproduction. May be repeated once for credit. Concurrentlyscheduled with course C454C. Letter grading.

163. Directing Cameras. (4) Laboratory, three hours. Enforced requisite: course 101A. Limited to Film and Television majors. Through exercises and preparation of short film, directors learn principles of motion and postproduction of image within and beyond narrative from directorial perspective. Experiments with working methodologies that stimulate visual creativity and positioning image as fundamental element of cinematic expression. Letter grading.

164. Directing Actors. (4) Laboratory, four hours. Exercises in analysis of script and character for purpose of directing actors. Emphasis on eliciting best possible performance from actors. May be repeated twice for credit. P/NP or letter grading.

168. Creative Location Film Production. (8) Lecture, four hours; discussion, four hours; laboratory, to be arranged. Limited to directing or producer's program students. Preparation and production of short film. Lecture and laboratory, two hours. Enforced requisite: course 175A. Composition of post-production (editing, creation of sound tracks) for short film begun in course 175A. P/NP or letter grading.

M177. Film and Television Acting Workshop. (2) (Same as Theater M178.) Laboratory, four hours. Workshop providing opportunities for students to rehearse, perform, and evaluate scenes. Three different production styles to which performers may need to adjust: (1) performance with director (2) single-camera experience, and (3) multiple-camera experience. May be repeated twice for credit. Letter grading.

178. Film and Television Production Laboratory. (3 to 8) Laboratory, to be arranged. Supervised laboratory experience in various aspects of film and television production. May be repeated for maximum of 12 units, but only 8 units may be applied toward Film and Television major. Letter grading.

180A. Animation Fundamentals. (5) Lecture, six hours; laboratory, six hours. Fundamentals of animation through exercises and preparation of short animated film. Students create 10-second film in one of traditional techniques (non-computer), with music and/or sound effects. Offered in summer only. Letter grading.

180B. Writing for Animation. (4) Lecture, two hours; laboratory, six hours. Analysis and practice of effective visual storytelling through creation of three production storyboards. Offered in summer only. Letter grading.

180C. Stop Motion Fundamentals Workshop. (3) Lecture, six hours; laboratory, six hours. Exercises designed to teach technical principles, and principles of motion and timing. Use of range of materials, building animation performances in split-second increments arranged to give illusion of movement. Exploration of early history of stop motion. Collaboration or creation of stop-motion film with each student directing and animating portion of film. Offered in summer only. Letter grading.


C181B. Writing for Animation. (4 or 8) Formerly numbered 181B.) Lecture, six hours; studio, to be arranged. Enforced requisite: course C181A or consent of instructor. Research and planning for animated film. May be repeated for maximum of 16 units. Concurrently scheduled with course C481B. P/NP or letter grading.


183A. Producing I: Film and Television Development. (4) Lecture, three hours; discussion, one hour. Open to nonmajors. Critical analysis of contemporary entertainment industries and practical approach to understanding and implementing producer's role in development of feature film and television scripts. Through scholarly and trade journal readings, in-class discussions, script analysis, and select guest speakers, exposure to various entities that comprise feature film and television industry. Basic introduction to story and exploration of proper technique for evaluating storyboards and teleplays through writing of coverage. May be taken independently for credit. Letter grading.

183B. Producing II: Entertainment Economics. (4) Lecture, three hours; discussion; one hour. Open to nonmajors. Critical understanding of strategies and operating principles that define the entertainment industry. Exploration of theoretical frameworks and development of critical perspective, while studying industrial processes through which movie and television properties are financed and exploited. Concentration on all revenue streams and how they are divided, with consideration of potential credit. Letter grading.

183C. Producing III: Marketing, Distribution, and Exhibition. (4) Lecture, three hours; discussion, four hours. Open to nonmajors. Critical analysis of strategies and operating principles that define the entertainment industry. Exploration of theoretical frameworks and development of critical perspective, while studying industrial processes through which movie and television properties are financed and exploited. Concentration on all revenue streams and how they are divided, with consideration of potential credit. Letter grading.

184B. Overview of Contemporary Television Industry. (4) Lecture, three hours. Examination of evolving economic structures and business practices in contemporary Hollywood television industry, with emphasis on operations of networks and cable companies, series development, marketing, and network branding from 1947 to present. Letter grading.

185. Intermediate Undergraduate Film Production. (8) Laboratory, six hours. Requisites: courses 52, 154, 155, 163. Limited to Film and Television majors. Instruction and exercises in all stages of film production. Letter grading.

C185A. Advanced Documentary Workshop. (4) Formerly numbered 185A.) Lecture, three hours; laboratory, three hours; fieldwork, four to six hours. Enforced requisite: course 185. Course 185A is requisite to 186B, which is requisite to 186C. Introductory viewing and discussion of selected documentaries and instruction in various production skills necessary to create video documentaries. Completion of series of exercises from conceptualization through postproduction, culminating in production work. Offered in summer only. Concurrently scheduled with course C403A. Letter grading.

C185B. Advanced Documentary Workshop. (4) Formerly numbered 185B.) Lecture, three hours; laboratory, three hours; fieldwork, four to six hours. Requisite: course 185. Course 185B is requisite to 186B, which is requisite to 186C. Advanced view¬ing and discussion of selected documentaries and instruction in various production skills necessary to create video documentaries. Completion of series of exercises from conceptualization through postproduction, culminating in production work. Offered in summer only. Concurrently scheduled with course C403A. Letter grading.
from conceptualization through postproduction, culminating in production of short documentary. Concurrently scheduled with course C403B. Letter grading.

C186C. Advanced Documentary Workshop. (4) (formerly numbered 186C.) Lecture, three hours; laboratory, four to six hours. Requisite: course C186B. Advanced viewing and discussion of selected documentaries and instruction in various production skills necessary to create video documentaries. Completion of series of exercises from conceptualization through postproduction, culminating in production of short documentary. Concurrently scheduled with course C403C. Letter grading.

188A. Special Courses in Film, Television, and Digital Media. (4) Lecture, discussion, one hour; special topics in film, television, and digital media for undergraduate students taught on experimental or temporary basis. May be repeated for credit. P/NP or letter grading.

188SA. Individual Studies for USIE Facilitators. (1) Tutorial, to be arranged. Enforced corequisite: Honors Colegation 101E. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor to finalize course syllabus. Individual contract with faculty mentor required. May not be repeated. Letter grading.


188SC. Individual Studies for USIE Facilitators. (2) Tutorial, to be arranged. Enforced corequisite: course 188SB. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor while facilitating USIE 88S course. Individual contract with faculty mentor required. May not be repeated. Letter grading.

189. Advanced Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to undergraduate lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

194. Internship Seminars: Film, Television, and Digital Media. (2 or 4) Tutorial, one hour; internship, eight hours. Enforced corequisite: course 194. Limited to juniors/seniors. Corporate internship in supervised setting in business related to film, television, and digital media industries. Students meet on regular basis with instructor and provide periodic reports of their experience. May be repeated for credit. Individual contract with supervising faculty member required. P/NP or letter grading.

195C. Corporate Internships in Film, Television, and Digital Media. (4) (formerly numbered 195.) Tutorial, one hour; fieldwork, eight to 10 hours. Enforced corequisite: course 194. Limited to juniors/seniors. Corporate internship in supervised setting in business related to film, television, and digital media industries. Examination of a range of experiences related to internship course through series of reading assignments constructed by faculty sponsor and graduate student coordinator. May be repeated for credit with consent of Center for Community and Supervising faculty member required. P/NP or letter grading.

199. Directed Research or Senior Project in Film, Television, and Digital Media. (2 to 8) Tutorial, three hours. Limited to senior Film and Television majors. Supervised individual research or investigation under guidance of faculty mentor. Culumnizing paper or project required. 12 units. Individual contract required. P/NP or letter grading.

Graduate Courses

200. Seminar: Research, Methods, and Resources. (6) Seminar, three hours; laboratory, four to six hours additional screening (may be taken maximum of 8 units). Individual contract required. P/NP or letter grading.

201A. Seminar: Media Industries and Cultures of Production—Foundations. (6) Seminar, three hours; film screenings, three hours. Critical survey of various scholarly traditions and methods (ethnographic, sociological, psychological) that have been used to study film and television production practices as cultural, social, and industrial phenomena, as basis for individual student research project. Letter grading.

201B. Seminar: Media Industries and Cultures of Production—Transmedia. (6) Seminar, three hours; film screenings, three hours. Examination of contemporary production studies research and transmedia practices in industry and transmedia practices in marketing, licensing, distribution, industrial organization, creative work, new technologies, and evolving relations between fans and producers in digital economy. Letter grading.


203. Film and Other Arts. (6) Seminar, three hours; film screenings, four to six hours. Designed for graduate students. Studies in interrelationships between film and other performing arts or literature, with emphasis on ways other arts have influenced film. May be repeated twice for credit. S/U or letter grading.

204. Seminar: Visual Analysis. (6) Seminar, three hours; film screenings, four to six hours. Study of visual analysis (or textual analysis), using DVD access features, as approach to learning what makes film great and distinct art form. Exploration of role of visual style in narrative fiction filmmaking to attempt to understand some ways it can operate. Letter grading.

205. Seminar: Videographic Scholarship. (6) Seminar, three hours; laboratory, three hours. Prior technical knowledge not required. Technical assistance is available. Creative research project is film/television history and analysis designed for audio-visual medium, finalized as high-resolution DVDs. Projects may be extensions of research intended for print publication, dissertation chapters, conference presentations, teaching, etc. Equal emphasis on acquiring basic skills needed to create visual essays and on methods of research for this new form of scholarship. Consideration of formats and advantages of print versus audio-visual publication. Use of Adobe Production Suite. Letter grading.

206A. Seminar: European Film History. (6) Seminar, three hours; film screenings, two to four hours. Designed for graduate students. Studies in different periods of European cinemas or movements. Topics may include Italian neorealism, French film of 1930s, French New Wave and crime film, Weimar cinema, and Soviet silent cinema. See annual departmental listings for special topics. May be repeated twice for credit with topic change. Letter grading.

206B. Seminar: Selected Topics in American Film History. (6) Seminar, three hours; film screenings, three hours. Seminar with focus on specific topic or period in American film history. Letter grading.

206C. Seminar: American Film History. (6) Seminar, three hours; film screenings, four hours. Introduction to film industrial, social, and aesthetic history of American film. Letter grading.

206D. Seminar: Silent Film. (6) Seminar, three hours; film screenings, two to four hours. Discussion of silent film, beginning in 1895 to transition to sound cinema in 1927 to 1930. Film viewings discussed in terms of genre, national cinema, formal developments, and directors. Readings on film historical and theoretical issues. Letter grading.


208A. Seminar: Film Structure. (6) Seminar, three hours; film screenings, four to six hours. Designed for graduate students. Examination of various film conventions, both fictional and nonfictional, and of role of structure in motion picture narrative. Letter grading.

208B. Seminar: Classical Film Theory. (6) Seminar, three hours; film screenings, four hours. Study of principal topics and lines of inquiry that characterize theoretical approaches to film. Letter grading.

208C. Seminar: Contemporary Film Theory. (6) Seminar, three hours; film screenings, four to six hours. Requisite: course 208B. Designed for graduate students. Study of modernist film and its relation to contemporary culture. S/U or letter grading.

209A. Documentary Film. (6) Seminar, three hours; film screenings, four to six hours. Designed for graduate students. Nonfictional film and its relation to contemporary culture. S/U or letter grading.

209D. Seminar: Animated Film. (6) Seminar, three hours; film screenings, three hours. Designed for graduate students. Critical study of animated film: its historical development, structure, style, use, and relation to contemporary culture. S/U or letter grading.

211A. Seminar: Historiography. (6) Seminar, three hours; film screenings, three hours. Limited to Film and Television MA candidates. Examination of function and methods of writing film and television history as seen in works of key historians in U.S. and Europe. S/U or letter grading.

211B. Seminar: Historiography. (6) Seminar, three hours; film screenings, three hours. Limited to Film and Television PhD candidates. Examination of function and methods of writing film and television history as exemplified by key works in this tradition, with attention to central issues of historical thought on media. S/U or letter grading.

212. Cinema and Media Studies Graduate Colloquium. (2) Lecture, two hours. Exchange with scholars inside and outside departments in the School of Cinema and Media Studies and academic paper presentation and offers students practice in presenting papers for professional conferences, CV writing seminars, job market/interview preparation workshops. Limited to Film and Television MA candidates. Capstone course for cinema and media studies master's program. Students write, revise, and present comprehensive essay on preapproved topic derived from their MA coursework. Letter grading.

215. Seminar: Theory and Method. (6) Seminar, three hours. Limited to Film and Television MA candidates. Critical reexamination of major theoretical traditions that bear on film and television through study of writings of such academics as Nathaniel Bruss, data, autonomy, semiotics, psychoanalysis, sociology, etc. S/U or letter grading.

220. Seminar: Selected Topics in Film Theory. (6) Seminar, three hours; film screenings, three hours. Seminar with focus on specific topic or period in American film history. Letter grading.
215B. Seminar: Text and Context in Intermedia Age. (5) Seminar/screenings, five hours. Theoretical and methodological approaches to media texts and contexts beginning with theories that located aesthetic, ideological, and cultural meanings in literary, theatrical, film, or television texts or group of texts to latter approaches from within material, social, and industrial contexts from which media texts emerge. Letter grading.

216. Film, Costume, and Character. (6) Seminar, three hours; screenings, three hours. Exploration of integration of costume design into filmmaking process and illumination of work required to bring characters from written page to life. Discussion of practice of costume design. Analysis of films from various genres. Letter grading.

217A. Seminar: American Television History. (6) Seminar, three hours; screenings, four hours. Critical survey of U.S. television industry from its inception to present. Examination of programming and changes within industry by considering range of technological, economic, aesthetic, social, and cultural dimensions. Letter grading.

217B. Seminar: Selected Topics in Television History. (6) Seminar, three hours; screenings, three hours. Advanced critical seminar, with focus on specific topic or area (historical period, industry, programming, genre, or international) in domestic or international television. Letter grading.

218. Seminar: Culture, Media, and Society. (6) Seminar, three hours; screenings/discussion, four hours. Emphasis on discourse of other(s); reification and schematization of other is concerned with theories of difference rather than similarity or identity—how with other cultures enter into politics of representation and reification of politics through metaphors of (1) difference without opposition, (2) heterogeneity without hierarchy, and/or (3) otherness without ethnocentrism. Examination of how women, national minorities, and Third World peoples have been rendered others; place of cinema in cultural process and how academization of others is positioned vis-à-vis mainstream critical discourse. Letter grading.

219. Seminar: Film and Society. (6) Seminar, three hours; film screenings, four to six hours. Designed for graduate students. Study of ways films affect and is affected by social behavior, belief, and value systems; considered in relation to role of media in society. May be repeated once for credit. S/U evaluation.

220. Seminar: Television and Society. (6) Seminar, four hours; screenings/discussion, three hours. Designed for graduate students. Study of ways television forms affect and are affected by social behavior, belief, and value systems; consideration of technological and economic aspects of medium. May be repeated once for credit. S/U or letter grading.

221. Seminar: Film Authors. (6) Seminar, three hours; film screenings, four to six hours. Designed for graduate students. Intensive examination of works of outstanding creators of films. May be repeated twice for credit. S/U or letter grading.

222. Seminar: Film Genres. (6) Seminar, three hours; film screenings, four to six hours. Designed for graduate students. Studies of patterns, styles, and themes of such genres as Western, gangster, war, science fiction, comedy, etc. May be repeated twice for credit. S/U or letter grading.

223. Seminar: Visual Perception. (6) Seminar, three hours; film screenings, three hours. Aesthetic, psychological, physiological, and phenomenological approaches to vision as they relate to ways in which viewers experience and see film, television, and digital media. Letter grading.

224. Computer Applications for Film Study. (6) Lecture, three hours; film screenings, three hours. Survey of computer applications relevant to film study, principally computer-assisted editing, and image capture technology. S/U or letter grading.

225. Seminar: Videogame Theory. (6) Seminar, three hours; laboratory, three hours. Videogame theory, with exploration of literature, history, industrial practice, social effects, or any other of many interesting questions that games also raise. Acknowledgment of roots in film, television, and media studies and investigation of emerging videogame field. S/U or letter grading.

CM229. Contemporary Topics in Theater, Film, and Television. (2) (Same as Theater CM229.) Lecture, two hours; screenings, two hours. Limited to junior/senior and graduate students. Examination of creative process in theater, film, and television, with consideration of writing, direction, production, and performance. Overview of individual contribution in creative effort. Examination of distinctiveness and interrelations among these arts. Individual units include participation of leading members of theater, film, and television professions. May be repeated twice for credit. Concurrently scheduled with course CM129. S/U or letter grading.


C243. Moving Digital Image. (4) Lecture, three hours; laboratory, three hours. Investigation of different ways of creating and manipulating linear moving images (digital video) on desktop computers, exploring both creative and theoretical aspects of this production environment. Students conceive and produce number of projects and are currently scheduled with course C143. Letter grading.

C244. Interactive Multimedia Authoring. (4) Lecture, three hours; laboratory, three hours. Introduction to expressive and aesthetic potential of interactive digital media and its theoretical issues. Exploration of methodologies and tools for media integration, interface design, and interactive audiovisual construction. Students conceive, produce, and master individual interactive multimedia projects. May be repeated once for credit. Concurrently scheduled with course C144. Letter grading.


246. Seminar: Issues in Electronic Culture. (6) Seminar, three hours; screenings, three hours. Critical studies seminar with major hands-on laboratory component that explores impact of new digital technologies on contemporary culture and aesthetics. Students do laboratory projects using visualization, image manipulation tools, and Internet authoring tools. Letter grading.

C247. Planning Independent Feature Production. (4) Lecture, three hours; laboratory, one hour. Analysis of procedure, problems, and budgets in planning feature-length script for film and television production, with emphasis on role of producer and creative organizational techniques. Concurrently scheduled with course C147. Letter grading.

C248. Advanced Digital Media Workgroup. (4) Laboratory, two hours; discussion, four hours. Designed for students with previous laboratory course experience to provide opportunity to create larger-scale digital media works with advanced software tools and techniques in small process-oriented, creative workshop environment. May be repeated twice for credit. Concurrently scheduled with course C148. Letter grading.

270. Seminar: Film Criticism. (6) Seminar, three hours; film screenings, four to six hours. Designed for graduate students. Study of key aesthetic questions of analysis and evaluation of works of motion picture criticism. May be repeated once for credit. S/U or letter grading.

271. Seminar: Television Criticism. (6) Seminar, four hours; screenings/discussion, three hours. Designed for graduate students. Analysis of major forms of television production and criticism it has elicited. May be repeated once for credit. S/U or letter grading.

272. Seminar: Contemporary Film and Television Theory. (6) Seminar, three hours; film screenings, four to six hours. Limited to Film and Television PhD candidates. Study and practice of analytic and critical response, with emphasis on contemporary films, television, and digital media. S/U or letter grading.

273. Seminar: Non-Western Films. (6) Seminar, three hours (additional hours as required); film screening, three hours. Designed for graduate students. Study of aesthetic and ideological impulses of selected films from Asia, Africa, and Latin America. S/U or letter grading.


282A. Writing One-Hour Drama Speculative Episode. (4) Laboratory, two hours; discussion, one hour. Analysis of procedure, problems, and budgets in planning feature-length script for film and television production, with emphasis on role of producer and creative organizational techniques. Concurrently scheduled with course C147. Letter grading.

283A. Fundamentals of Writing for Television. (4) Lecture, three hours. Comprehensive overview of today's television landscape for writers, with emphasis on new structures and formats ushered in by on-demand, digital television revolution. Letter grading.

283B. Writing Half-Hour Comedy Pilot and Series Bible. (6) Seminar, three hours. Required: course 283A. Examination of basics of half-hour pilot format, style, and content, and learning of principles behind network needs and choices in choosing pilots. Workshop in which to discuss ideas as issues with class and instructor. Weekly progress on original half-hour pilot and series bible required. Letter grading.

283C. Running Television Comedy Room. (4) Seminar, three hours. Enrolled requisite: course 283A. Critically analyze and critique scripts to be writer/executive producer of half-hour comedy show. Focus on community building, collaboration, and leadership skills needed to successfully function in writers' room, as well as breaking stories, writing, and rewriting television scripts. Letter grading.

284A. Writing One-Hour Drama Speculative Episode. (4) Seminar, three hours. Basic tenets and analysis of television drama shows and contemporary industry production and business practices. Continued development of original show concepts and series proposals for review and feedback by class, instructor, and guests. Letter grading.

284B. Writing One-Hour Drama Pilot and Series Bible. (6) Seminar, three hours. Required: course 283A. Examination of basics of drama pilot format, style, and content, and learning of principles behind network needs and choices in choosing pilots. Workshop in which to discuss ideas as issues with class and instructor. Weekly progress on original drama pilot and series bible required. Letter grading.

284C. Running Television Drama Room. (4) Seminar, three hours. Enrolled requisite: course 284A. Critically analyze and critique scripts to be writer/executive producer of one-hour drama show. Focus on community building, collaboration, and leadership skills needed to successfully function in writers' room, as well as breaking stories, writing, and rewriting television scripts. Letter grading.
287A. Introduction to Art and Business of Producing I. (4) Seminar, three hours. Introduction for first-year producers program students to producer's role in navigating unique dynamic between art and commerce in entertainment industry. Overview of development, production, marketing, distribution of feature films for studio and independent financing and distribution. S/U or letter grading.

287B. Introduction to Art and Business of Producing II. (4) Seminar, three hours. Requisite: course 287A. Builds on principles taught in courses 287A and presents specific elements of screenplay development, negotiation, and distribution. Focus is on isolation and identifying primary and secondary obstacles to achieving results as producer, writer, or director. Assignments designed to assist students in articulating and achieving their goals and to help them effectively transition from classroom to their careers in entertainment industry. S/U or letter grading.

289C. Independent Spirit: Creative Strategies for Feature Film Development Process. (4) Lecture, three hours. Tools necessary for producer to navigate Hollywood entertainment industry. Topics discussed through lectures and guest speakers, focusing on isolation and identifying primary and secondary obstacles to achieving results as producer, writer, or director. Requires student to present project. S/U or letter grading.

290A. Film Production. (4) Lecture, three hours. Provides an overview of the film production process, including production and marketing strategies. S/U or letter grading.

290B. Research and Development I. (4) Seminar, three hours. Focus is on development of a strategic plan and mock story meetings with instructor, students, and various industry guests. Development of one story idea for thesis project. S/U or letter grading.

290C. Independent Strategy: Creative Strategies for Finishing and Distributing Independent Features. (4) Lecture, three hours. Course 290B is not a prerequisite to 290C. Key insights into financing and distribution of independent or specialty films. Topics include film finance, production, marketing, distribution, and new technology, emphasizing on applying this knowledge to individual student projects. S/U or letter grading.

291A. Features versus Independents: Navigation Process. (4) Lecture, three hours. Tools necessary for producer to navigate Hollywood entertainment industry. Topics discussed through lectures and guest speakers, focusing on isolation and identifying primary and secondary obstacles to achieving results as producer, writer, or director. Requires student to present project. S/U or letter grading.

291B. Feature Film Marketing. (4) Lecture, three hours. Course 291A is not a prerequisite to 291B. Examination of numerous groups that are responsible for specific marketing components and make up marketing departments. Distribution and in-theater marketing, trailers, publicity, promotions, research, and media. Mechanic and levels of intuition required to make sure marketing plays a role in successful production. S/U or letter grading.

291C. Feature Film Distribution and Exhibition. (4) Lecture, three hours. Course 291B is not a prerequisite to 291C. Investigation of philosophy, structure, and major players that make up entertainment industry, with emphasis on written analysis and discussion. Through lectures, readings, and guest speakers, exploration of different areas involved in production, marketing, business affairs, media, and impact of international market on distribution and exhibition of studio releases. S/U or letter grading.

292A. Advanced Screenwriting. (4) Seminar, three hours. Introduction for first-year screenwriters. Conception and design of original, original digital media concepts with interactive or participatory story elements for review and feedback by class instructor, and guests. S/U or letter grading.


292C. Running Shows: Producing for Broadcast and Cable. (4) Lecture, three hours. Course 292B is not a prerequisite to 292C. Exploration of role of writers, producers, and directors in creating television shows. Designed to train writers who typically enter field as staff writers and to develop concrete tools of producers. Training of next generation of nonwriting network and studio development executives whose job is to assist writers-producers in highly collaborative process of creating, developing, producing, and scheduling television programming. S/U or letter grading.

293. National Film, Television, and Digital Media Producing 1. (4) Seminar, three hours. Overview of changing world of storytelling through development of new technologies and new media. Concepts, critical thinking, analysis, and application of innovative, original, digital media concepts with interactive or participatory story elements for review and feedback by class instructor, and guests. S/U or letter grading.


295C. Advanced Producing: Role of Successful Film and Television Producing. (4) Lecture, three hours. Designed to help producers, as well as screenwriters and directors, focus on networking opportunities and to develop strategies to bring their feature and television projects to marketplace. Exploration of interrelated arenas of production, marketing, distribution, and television. Preparation: apprentice period (drafts, etc.) from current or recently produced projects provided. S/U or letter grading.

295D. Legal Considerations for Independent Film and Television Producing. (4) Seminar, three hours. Overview of different forms of representation offered by agents, managers, business managers, and lawyers and debtor relations and responsibilities of each. Exercises require students to present rights holders in series of potential projects. S/U or letter grading.


297A. Digital Media Producing 1. (4) Seminar, three hours. Overview of changing world of storytelling through development of new technologies and new media. Concepts, critical thinking, analysis, and application of innovative, original, digital media concepts with interactive or participatory story elements for review and feedback by class instructor, and guests. S/U or letter grading.


298A. Introduction to Art and Business of Producing III. (4) Seminar, three hours. Requisites: courses 287A, 287B. Builds on principles taught in courses 287A and 287B. Presentation of screenplays prepared in course 290A. Focus is on writer-producer's role in navigating primary and secondary obstacles to achieving results as producer, writer, or director. Topics include script analysis and creating set of viable development notes for primary and secondary obstacles to achieving results as producer, writer, or director. S/U or letter grading.
401. Film Analysis for Filmmakers. (4) Lecture/ screenings, five hours. Limited to graduate film and television students. Drawing heavily from a variety of historical examples, examination of many expressive strategies useful in creation of moving image art forms. Understanding of and practice, presentation of approach to viewing great films of past that empowers filmmakers to use sound and images to tell original stories in present. Focus on strategic decision making in areas of writing, design, cinematography, editing, sound, and performance to enable filmmakers to recover their own personal style for telling stories on screen. Letter grading.

402A-402B. Advanced Narrative Directing Workshops. (4 or 8–8) Limited to nine graduate film and television students. Production of 10- to 15-minute fiction film or project. Letter grading. 402A. Laba- tory, six or 12 hours; fieldwork, to be arranged. Requi- sites: courses 405, 409, 410A, 410B, 410C, 433. Stud- ents budget and preproduce their projects by end of first term. 402B. Laboratory, 12 hours; fieldwork, to be arranged. Requisite: course 402A. In second term students must complete photography on location and/or in studio.


404A-404B. Advanced Abstract/Experimental Media Workshops. (6–8) Lecture/discussion/laboratory, 12 hours; fieldwork, to be arranged. Requisites: courses 405, 409, 410A, 410B, 410C, 404A, 404B. Completion of all stages of production and postproduction on projects started in courses 404A and 404B. Letter grading.

405. Digital Image Manipulation on Set and Post. (4) Lecture; two hours; laboratory; two hours. Requisite: course 410B. Students achieve greater under- standing and command of tools and techniques of color correction and matte compositing (both on set and in post production) through lectures, discussions, workshops, and screenings. Increases student’s ap- preciation and skill set in art of digital image manipula- tion in cinematography. May be repeated once for credit. Letter grading.


408A-408B. Avid Editing. (4–4) Studio, four hours; laboratory, to be arranged. Individual instruction in Avid nonlinear editing system. S/U or letter grading. 408A. Avid Editing 1; 408B. Avid Editing 2.

409. Directing Actors for Camera Workshop. (4) Workshop, six hours; laboratory, to be arranged, laborato- ratory preparations. Limited to MFA production program students. Team-taught with five weeks designed to give director actor/camera tech- niques, and five weeks to offer basic strategies to elicit good performances from actors. Emphasis on prob- lems faced when directing actors for film. S/U or letter grading.

410A. Symposium. (2) Seminar, three hours. Limited to and required of first-year MFA production program students. Exploration of principal concepts of film and television production within context of preproduction, production, and postproduction, providing forum for synthesis of knowledge gained in various first-year technical craft courses. Exploration of strategies for learning production within academic environment. May be repeated for credit. Letter grading.

410B. Cinematography. (2) Seminar, three hours. Limited to and required of first-year MFA production program students. Production workshop designed to give hands-on experience in all aspects of film pro- duction (tools and practicum of medium) as each student writes/directs/edit pixi-minute film. May be re- peated for credit. Letter grading.

410C. Postproduction. (2) Seminar, three hours. Lim- ited to and required of first-year MFA production pro- gram students. Production workshop designed to give hands-on experience in all aspects of film production (tools and practicum of medium) as each student writes/directs/edit pix six-minute film. May be repeated for credit. Letter grading.


410E. Production. (12) Lecture, three hours; field- work, 24 to 40 hours. Requisites: courses 401, 409, 410A through 410C. Limited to and required of first- year MFA film production/directing students. Designed to give hands-on experience in film production. Students prepare and direct six-minute films and perform in preas- signed crew positions for each other. Letter grading.

4116. Intermediate Cinematography. (4) Lecture, two hours; laboratory, four hours. Intermediate study of principles of cinematography, with emphasis on ex- posure, lighting, and selection of film, camera, and lenses. Concurrently scheduled with course C118. Letter grading.

4117. Lighting for Film and Television. (4) Formerly numbered 417.) Lecture, two hours; laboratory, six hours. Limited to and required of first-year MFA film production students. Lectures, supervised exercises on stage or in exterior, screenings of scenes, and discussions aimed at learning to master lighting to create appropriate mood or atmosphere of premastered scene recorded on film or through electronic system. May be repeated twice for credit. Concurrently scheduled with course C117. Letter grading.

418. Cinematography and Directing. (4) Lecture, two hours; laboratory, four hours; prerequisite: course 417. Limited to graduate film and television students. Supervised filming of short dramatic projects on sound stage and at exterior locations that explore complexities of preplanning, on-site collaboration, and collaborative shooting in both directing and cinematography in its varied technical, production, and creative as- pects. Letter grading.

419. Advanced Cinematography. (4) Lecture, two hours; discussion, one hour; laboratory, one hour. Requisites: courses 417, 418. Limited to graduate film and television students. Advanced study of principles of cinematography, with emphasis on exposure, lens selection of film, camera, and lenses. S/U or letter grading.


423B. Advanced Direction of Actors for Film and Television. (4) Studio laboratory, six hours. Requisite:Demands of directors working with inexperienced actors and postproduction on projects started in courses 403A and 403B. Letter grading.

424. Emerging Techniques and Technologies in Cinematography. (4) Lecture, two hours; laboratory, two hours. Requisite: course 410B. Designed to keep students abreast of ever-changing tools and tech- niques of cinematography. Exploration of developing concepts and familiarization with emerging technology and equipment. Focus may change to reflect changes in current technology. May be repeated twice for credit. Letter grading.


426. Advanced Abstract/Experimental Media Workshop. (8–8) Lecture/discussion/laboratory, 12 hours; fieldwork, to be arranged. Requisites: courses 405, 409, 410A, 410B, 410C, 433. Limited to 10 students. Emphasis on production of 20-minute ex- tract or experimental film, video, or multimedia project. Students plan, design, and shoot their projects in first term and work as crew for each other in rota- ting assignments. In second term students must complete postproduction of their projects. S/U or letter grading.

428. Advanced Abstract/Experimental Media Workshop. (4) Lecture/discussion/laboratory, 12 hours; fieldwork, to be arranged. Requisites: courses 405, 409, 410A, 410B, 410C, 433. Limited to 10 students. Emphasis on production of 20-minute ex- tract or experimental film, video, or multimedia project. Students plan, design, and shoot their projects in first term and work as crew for each other in rota- ting assignments. In second term students must complete postproduction of their projects. S/U or letter grading.

429. Introduction to Film and Television Screenwriting. (4) Lecture, three hours. Limited to graduate film and television students. Introductory course in problems of film and television screenwriting. S/U or letter grading.

430. Writing Short Screenplays. (4) Lecture, three hours. Limited to and required of first-year MFA pro- duction program students. Conception, development, and writing of six-minute dramatic film script to be produced in courses 410A, 410B, 410C. Letter grading.


432. Advanced Writing for Short Film and Televi- sion Screenplays. (4) Discussion, three hours. Requi- site: course 410C. Limited to and required of first-year film and television students. Conception, development, and writing of dramatic film script to be produced as advanced or thesis project. Letter grading.

433. Advanced Storytelling Tools for Screenwriters: Storytelling in Practice. (4) Lecture, three hours. Recom- mended requisite: course C430 or 431. Instruction in identification and application of specialized narrative tools common to screenplays. Students view and ana- lyze well-known films that employ these devices to significant and endearing effect. Students also read screenplays (or portions thereof) of these films to ana- lyze how screenwriters convey each device in written form. Students write original screenplays that develop opportunities that demonstrate their practical mastery of these tools as they relate to their own development as screen- writers. S/U or letter grading.

437. Adaptation for Screen. (6) Seminar, three hours. Requisites: courses C430, 431. Students analyze techniques of dramatic adaptation and apply them by writing their own scripted adaptations. Students read selected texts and view their filmed versions in order to learn various approaches to writing their own workshop their own screenplays adapted from prese- lected list of stories. Letter grading.

452B. Postproduction Sound. (2) Laboratory, three hours. Limited to Production MFA students. Technical and aesthetic aspects of postproduction sound recording, editing, and rerecording for film and television. Letter grading.

C452C. Digital Postproduction. (4) Lecture, three hours; laboratory, three hours. Limited to Film and Television majors. Through discussion, demonstrations, and laboratory assignments, exploration of digital audio tools and procedures available to today’s filmmakers. Examination of technical, equipment, software, and software step-by-steps, with emphasis on creative processes. Concurrently scheduled with course C181A. Letter grading.

453. Postproduction Sound Design. (2 to 4) Lecture, three hours. Designed to give film students insight into world of postproduction sound and to provide knowledge and tools necessary to complete postwork on their projects. Exploration of all areas of postproduction sound design from editing to final mixing. How to effectively use sound design to enhance storytelling capability of films, evaluate music choices, pick composer, mix sound design to enhance story points, discover design opportunities, and select right sound effects. How to edit dialogue, prep for Automatic Dialogue Replacement and Foley sound design, car and environment sound. Screening of numerous film clips to provide examples of postsound choices that demonstrate effective use of sound design. S/U or letter grading.

C454B. Advanced Film Editing. (4) Lecture, three hours; laboratory, four hours. Preparation: submission of rough cut of existing project or proposal to edit work of another director. Limited to film and television students in postproduction phase with advanced knowledge of organization and operation of postproduction process. Students may also propose to edit significant scene given them by instructor. Concurrently scheduled with course C154B. Letter grading.

C454C. Digital Workflow. (2 to 4) Formerly numbered 454C.) Lecture, three hours; laboratory, two hours. Limited to departmental majors. Through discussions, demonstrations, outside speakers, and laboratory assignments, demystification of ever-changing world of digital workflow. Students plan, schedule, and budget their overall workflow in preproduction. May be repeated once for credit. Concurrently scheduled with course C154B. Letter grading.

459A–459B. Introduction to Film and Television. (4–4) Lecture, three hours. Limited to graduate film and television students. Analysis and exploration, with specific scenarios, of differences and many similarities in directorial approach to same literary material in theater, film, and television. S/U or letter grading.


C468. Creative Location Film Production. (8) Lecture, four hours; discussion, four hours; laboratory, to be arranged. Limited to directing or producer’s program students. Problems of location, production, directing, and cinematography in various real-life practical locations. Practical application of solving problems and communication within limitations of production experience. Concurrently scheduled with course C168. Letter grading.

472. Commercials. (4) Lecture, four hours. Limited to MFA students. Designed to give students opportunity to explore one very specific kind of filmmaking. Through hands-on advertising, students gain knowledge about what kind of work is salable in American and foreign markets and how to work within distinct confines of commercial genre. Letter grading.

480. Timing for Animation. (4) Lecture, three hours; laboratory, three hours. Process of animation timing through lectures and assignments. Letter grading.


C481B. Writing for Animation. (4 or 8) Lecture, six hours; studio, to be arranged. Requisite: course C481A or consent of instructor. Research and practice in creative writing and planning for animated film. May be repeated for maximum of 16 units. Concurrently scheduled with course C181B. S/U or letter grading.

C481C. Animation Workshop. (4 or 8) Studio, six hours. Preparation: storyboard at first class meeting. Requisite: course C181A. Organization and integration of various creative arts used in animation to form complete study of selected topic. May be repeated for maximum of 16 units. Concurrently scheduled with course C181C. S/U or letter grading.

482A–482B. Advanced Animation Workshops. (4 or 8 each) Lecture, three hours; studio, to be arranged. Requisites: courses 181A, 181B, 181C. Advanced organizational and integration of various creative arts used in animation, resulting in production of complete animated film. May be repeated for maximum of 16 units. S/U or letter grading.

483A–483B–483C. Advanced Computer Animation. (4 to 8 each) Lecture, six hours; laboratory, four hours. Requisites: courses 181A, 181C, 482A. Recommended: course 181B. Course 483A is requisite to 483B, which is requisite to 483C. Creative and production of complete and original advanced computer animated film. Letter grading.

484A–484B. Visual Thinking and Organization for Animation. (4–4) Lecture, six hours; laboratory, four hours. Course 484A is requisite to 484B. Systematic approach to analyzing and communicating two-dimensional and three-dimensional form and applying traditional compositional approaches to animation. May be repeated for maximum of 16 units. Letter grading.

485. Legal Issues in Animation. (4) Lecture, three hours; laboratory, three hours. Examination of legal issues in animation, including copyright, contracts, constitutional issues in animation, competing rights, employer/employee relationships, and representation in animation. S/U or letter grading.

486. Directed Individual Study: Preparation to Advance to Candidacy for MFA in Production. (2 to 4) Tutorial, four to eight hours. Limited to MFA production program students. Completion of projects in final stages of postproduction. May not be repeated. S/U or letter grading.

488A. Interactive Animation. (4 to 8) Lecture, six hours; laboratory, to be arranged. Requisites: courses 161A, 161C, 488A. Organization and interaction of various creative arts used in animation and interactive media to form complete study of selective interactive animation project. May be repeated for maximum of 16 units. Letter grading.

488B. Advanced Interactive Animation. (4 to 8) Lecture, six hours; laboratory, to be arranged. Requisite: course 488A. Organization and integration of various creative arts used in animation and interactive media to form complete project of selected interactive topic. May be repeated for maximum of 16 units. Letter grading.

490A. Computer Animation in Film and Video. (4 to 8) Lecture, six hours; laboratory, four to eight hours; other, to be arranged. Preparation: completed animated film. Requisites: courses 181A, 181C. Instruction and supervised production of computer animation. May be repeated for maximum of 16 units. Letter grading.

498B. Production in Computer Animation. (4 to 8) Lecture, six hours; laboratory, four to eight hours. Requisite: course 488A. Instruction in creation, production, and production of complete and original computer animation film or tape. May be repeated for maximum of 16 units. Letter grading.

495A. Practice of Teaching Film and Television. (2) Seminar, three hours. Required of all teaching assistants and associates in critical studies program. Orientation and preparation of graduate students who have responsibility to assist in teaching undergraduate courses in department; discussion of problems common to teaching experience. S/U grading.

496. Practice of Teaching Film and Television. (2) Discussion, two hours. Required once of all teaching assistants and associates in department. Orientation and preparation of graduate students who have responsibility to assist in teaching undergraduate courses in department; discussion of problems common to teaching experience. May not be applied toward MA, MFA, or PhD. May be repeated. S/U grading.

498. Professional Internship in Film and Television. (4, 8, or 12) Tutorial, to be arranged. Full- or part-time at studio or on professional project. Designed for MFA program advanced students. Internship at various film, television, or theater facilities accentuating creative contribution, organization, and work of professionals in their various specialties. Given only when projects can be scheduled. S/U or letter grading.

501. Cooperative Program. (2 to 8) Tutorial, to be arranged. Preparation: consent of graduate adviser and graduate dean, and host campus instructor, department chair, and graduate dean. Used to record enrollment of UCLA students in courses taken under cooperative arrangements with USC. S/U grading.

596A. Directed Individual Studies: Research. (2 to 12) Tutorial, to be arranged. Limited to graduate students. May be repeated with consent of instructor. S/U or letter grading.

596B. Directed Individual Studies: Writing. (2 to 12) Tutorial, to be arranged. Limited to graduate students. May be repeated with consent of instructor. S/U or letter grading.

596C. Directed Individual Studies: Directing. (2 to 12) Tutorial, to be arranged. Limited to graduate students. May be repeated with consent of instructor. S/U or letter grading.

596F. Directed Individual Studies: Production. (2 to 12) Tutorial, to be arranged. Limited to graduate students. May be repeated with consent of instructor. S/U or letter grading.

597. Preparation for PhD Qualifying Examinations in Film and Television. (2 to 12) Tutorial, to be arranged. May be taken for maximum of 12 units. S/U grading.


FOOD STUDIES
Interdisciplinary Minor
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Akhil Gupta, PhD (Anthropology)
Joseph F. Nagy, PhD (English)
Janet M. O’Shea, PhD (World Arts and Cultures/Dance)
Amy C. Rowat, PhD (Integrative Biology and Physiology)
Wendelin M. Slusser, MD, MS (Community Health Sciences)

Scope and Objectives
The Food Studies minor uses food—its production, preparation, sharing, consumption, and disposal—as a lens for understanding individual, sociocultural, and global issues. The study of the role of food in multiple complex aspects of life builds bridges across all areas of the academy, including arts, anthropology, environment and sustainability, folklore and mythology, geography, history, humanities, law, psychology, public health, public policy, and other fields. Through interdisciplinary courses and a capstone experience, students in the minor acquire a unique insight of food studies and emerge with a new intellectual framework for understanding this expanding area of study.

Undergraduate Study
Food Studies Minor
To be eligible for the Food Studies minor, students must be in good academic standing (have an overall grade-point average of 2.0 or better) and be enrolled in one of the required elective courses for the minor. To apply, students must file a petition with their academic counselor for the minor. It must be the last course completed for the minor. It must be the last course completed for the minor. Contact the academic counselor for the Food Studies minor for information on how to petition.

Required Capstone Course (4 units): Food Studies 195CE or 199. The capstone requirement gives students the opportunity to either put their studies into practice through internship or complete independent research in a food-related area of interest. The capstone course is required for completion of the minor. It must be the last course completed for the minor, after all other courses have been completed or concurrently with one remaining course requirement.

No more than two lower-division courses may be applied toward the minor. Students may petition to have courses other than those listed above under the required elective courses be applied toward the minor. Contact the academic counselor for the Food Studies minor for information on how to petition.

A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor.

Each minor course must be taken for a letter grade, and students must have an overall grade-point average of 2.0 or better in the minor. Successful completion of the minor is indicated on the transcript and diploma.

Food Studies
Lower-Division Courses
19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.
27. Critical Thinking about Food and Science Publications. (5) Lecture, two hours; discussion, one hour. Development of process of further thinking about stories behind conclusions from nutrition studies and food scientific literature. Exercises, discussions, reports, and readings designed to provide practices to become critical thinker in food science and literature. P/NP or letter grading.
M79. Food Politics and Cultural Solutions to Political Problems. (5) Same as World Arts and Cultures M79.) Lecture, four hours; discussion, one hour. Examination of issues of environmental and public health effects of intensive and extensive agriculture, influence of corporations on government, animal ethics, food deserts and urban gardening, and food insecurity. Focus on representation of such issues in documentaries, public lectures, memoirs, novels, and visual art, as well as on initiatives to address such problems through policy and activism. P/NP or letter grading.
89. Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to lower-division lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.
89HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to lower-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.
99. Student Research Program. (1 to 2) Tutorial (supervised research or other scholarly work), three hours per week per unit. Entry-level research for lower-division students under guidance of faculty mentor. Students must be in good academic standing and enrolled in minimum of 12 units (excluding this course). Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP or letter grading.

Upper-Division Courses
M132. Food Cultures and Food Politics. (5) Same as English M118F and Society and Genetics M132.) Lecture, four hours; discussion, one hour (when scheduled). Requisite: English Composition 3. Exploration of interdisciplinary field of food studies, with focus on how literature, art, science writing, and visual culture address political dimensions of food and agriculture in specific contexts. P/NP or letter grading.
133W. Historical Recipes and Recipe for History. (5) Lecture, two hours; discussion, one hour. Requisite: English Composition 3. Exploration of historical meaning of food in late Medieval and Early Modern Europe through lens of recipes. How recipes, as historical documents, are related to culture, social interactions, and historical ways of knowing. Introduction to ways that historians attempt to understand and recreate rhythms of daily life through interactive pedagogy and experimental reconstruction of historical recipes. Students gain working knowledge of food studies as an interdisciplinary field from historical perspective. Research project documenting original research. Satisfies Writing II requirement. P/NP or letter grading.
159. Food and Health in Global Perspective. (4) Lecture, three hours. Study problematizes and adds depth to common-sense understandings of healthy and unhealthy consumption by examining of relationships between food and health, from critical and holistic perspective, that accounts for interplay of biology and culture within broader historical, societal, and global contexts. Topics include what is meant by health, especially in terms of diet; relationship between food practices and evolutionary biology, as well as particular environments and bodily systems, histories, and their health implications; how major global foods have come to their dominance and consequences for health; and influences of food production, distribution, and preparation on health. P/NP or letter grading.
M170SL. Food Studies and Food Justice in Los Angeles. (4) Same as Community Engagement and Social Change M170SL) Seminar, three hours; fieldwork, two hours. Interdisciplinary service learning course that provides general understanding of access and equity issues related to food chain in Los Angeles. Exploration of social justice issues faced by residents of low-income communities. Reading of research from multiple disciplines, including but not limited to public health, environmental justice, and public policy. Service-learning component includes meaningful work with off-campus community partners selected in advance by instructor and Center for Community Learning. Letter grading.
M176SL. Making Films about Food. (5) Same as Community Engagement and Social Change M176SL and Public Affairs M176SL) Lecture, three hours. Introduction to documentary video production and distribution. Students work on assignments in pairs and small groups to create 8- to 10-minute video about one of several Los Angeles partner organizations that advocate for healthy, local, sustainable food. Consideration, through video production, of challenges posed by existing farming, distribution, and marketing methods, and strategies these groups are pursuing to create more sustainable food pathways. Students look at social media communication strategies to help think through intervention in face of historically entrenched industrial food production and regulations that remain favorable to mass-produced, processed food items. P/NP or letter grading.
187. Special Topics in Food Studies. (4) Lecture, three hours. Variable topics in one area within food studies. May be repeated for credit with topic and/or instructor change. P/NP or letter grading.
189. Advanced Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to upper-division lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor.
May be applied toward honors credit for eligible students. Honors contract noted on transcript. P/NP or letter grading.

189HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to upper-division lecture course. Individual student with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

195C. Community and Corporate Internships in Food Studies for Capstone. (4) Tutorial, to be arranged; fieldwork, eight to 10 hours. Limited to juniors/seniors. Internship in corporate, governmental, or nonprofit setting coordinated through Center for Community Learning (CCL). Students complete weekly written assignments, attend biweekly meetings with graduate student coordinator, and write final research paper. Faculty sponsor and graduate student coordinator construct series of reading assignments that examine issues related to internship site. Fulfills capstone experience requirement for Food Studies minor. Individual contract with site supervisor, CCL coordinator, and faculty sponsor required. Letter grading.

195CE. Community and Corporate Internships in Food Studies. (4) Tutorial, to be arranged; fieldwork, eight to 10 hours. Limited to juniors/seniors. Internship in corporate, governmental, or nonprofit setting coordinated through Center for Community Learning (CCL). Students complete weekly written assignments, attend biweekly meetings with graduate student coordinator, and write final research paper. Faculty sponsor and graduate student coordinator construct series of reading assignments that examine issues related to internship site. May be repeated for credit with consent of Center for Community Learning. Individual contract with site supervisor, CCL coordinator, and faculty sponsor required. P/NP or letter grading.

196. Research Apprenticeship in Food Studies. (4) Tutorial, one hour. Entry-level research apprenticeship under active guidance of faculty mentor affiliated with Food Studies minor. Collaboration with faculty mentors on their research in area related to food studies. May be repeated for credit. Individual contract required. Letter grading.

197. Individual Studies in Foodways, Diet, and Nutrition. (2 to 8) Tutorial, to be arranged. Limited to juniors/seniors. Individual intensive study, with scheduled meetings between faculty member and student. Assigned reading and tangible evidence of mastery of subject matter required. May be repeated for credit. Individual contract required. P/NP or letter grading.

199. Directed Research or Senior Project in Food Studies. (4) Tutorial, to be arranged. Limited to juniors/seniors. Supervised individual research projects in food studies under guidance of faculty mentor. Culminating paper required. May be repeated for credit. Individual contract required. P/NP or letter grading.

Graduate Course

375. Teaching Apprentice Practicum. (1 to 4) Seminar, to be arranged. Preparation: apprentice personnel employment as teaching assistant, associate, or fellow. Teaching apprenticeship under active guidance and supervision of regular faculty member responsible for curriculum and instruction at UCLA. May be repeated for credit. S/U grading.

FOREIGN LITERATURE IN TRANSLATION

Scope and Objectives

The following courses, offered in the departments of language and literature, do not require reading knowledge of any foreign language.

Courses

Afrikaans (Germanic Languages)

40. From Oppressed to Oppressor and Beyond: Literature in Afrikaans from Preapartheid to Postapartheid Era in English Translation

Ancient Near East (Near Eastern Languages and Cultures)

150A. Survey of Ancient Near Eastern Literatures in English; Mesopotamia

150B. Survey of Ancient Near Eastern Literatures in English; Egypt

Arabic (Near Eastern Languages and Cultures)

150. Classical Arabic Literature in English

151. Modern Arabic Literature in English

Armenian (Near Eastern Languages and Cultures)

150A. Survey of Armenian Literature in English

152. Modern Armenian Drama as Vehicle for Social Critique

Asian (Asian Languages and Cultures)

151. Buddhist Literature in Translation

Asian American Studies (Asian American Studies)

M173. Topics in Vietnamese Cinema and/or Literature

Central and East European Studies (Slavic, East European, and Eurasian Languages and Cultures)

91. Culture and Society in Central and Eastern Europe

120. Women and Literature in Southeastern Europe

125. Interwar Central European Prose

126. Coldwar Central European Culture

127. Central European Culture after Fall of Communism

130. Balkan Cultures in Film and Literature

Chinese (Asian Languages and Cultures)

70–70W. Classics of Chinese Literature

131. World Sinophone Literature: Theories and Texts

C150A. Lyric Traditions

C150B. Chinese Literature in Translation: Traditional Narrative and Fiction

151. Chinese Literature in Translation: Modern Literature

152. Topics in Contemporary Chinese Literature and Culture

M153. Chinese Immigrant Literature and Film

Classics (Classics)

40W. Reading Greek Literature: Writing-Intensive

41W. Reading Roman Literature: Writing-Intensive

60. Fantastic Journey: Antiquity and Beyond

137. Ancient Lives: Art of Biography

140. Topics in History of Greek Literature

141. Topics in History of Latin Literature

142. Ancient Epic

143A. Ancient Tragedy

143B. Ancient Comedy

144. Topical Studies in Ancient Culture

M145A. Ancient Greek and Roman Philosophy

M145B. Later Ancient Greek Philosophy

M146A. Plato—Earlier Dialogues

M146B. Plato—Later Dialogues

M147. Aristotle

150A. Female in Greek Literature and Culture

150B. Female in Roman Literature and Culture

162. Reception of Ancient Myth

163. Ovid and Consequences

Comparative Literature (Comparative Literature)

All undergraduate courses

Czech (Slavic, East European, and Eurasian Languages and Cultures)

155. Survey of Czech Literature from Middle Ages to Present

Dutch (Germanic Languages)

10. Contemporary Dutch Society and Culture: Beyond Rembrandt, Cheese, and Wooden Shoes

113. Modern Dutch and Flemish Literature in Translation

English (English)

111A. Hebrew Bible in Translation

111B. Christian Biblical Texts in Translation

111C. Topics in Biblical Literature

112A. Oral Tradition

112B. Celtic Mythology

112C. Survey of Medieval Celtic Literature

112D. Celtic Folklore

141B. Introduction to Old English Literature

141C. Topics in Old English

French (French and Francophone Studies)

112. Medieval Foundations of European Civilization

160. Francophone Cultures in English

161. French and Francophone Theater in Translation

163. French and Francophone Short Story in Translation

164. French and Francophone Novel in Translation

166. French and Francophone Autobiography in Translation

167. French and Francophone Intellectual History in Translation


191A. Variable Topics Research Seminars in Translation

German (Germanic Languages)

50B. Great Works of German Literature in Translation: Romanticism to Present

56. Figures Who Changed World: Cosmopolitanisms within a Global Context

59. Holocaust in Film and Literature

61A. Modern Metropolis: Berlin

102. War, Politics, Art
103. German Film in Cultural Context: Early German Film
104. German Film in Cultural Context, 1945 to Present
109. Jewish Question and German Thought
110. Special Topics in Modern Literature and Culture
112. Feminist Issues in German Literature and Culture
113. German Folklore
114. Fairy Tales and Fantastic
117. German Exile Culture in Los Angeles

Hungarian (Slavic, East European, and Eurasian Languages and Cultures)
121. Survey of Hungarian Literature in Translation

Iranian (Near Eastern Languages and Cultures)
150A-150B. Survey of Persian Literature in English

Italian (Italian)
42A. Italy through Ages in English: Saints and Sinners in Early Modern Italy
42B. Italy through Ages in English: Modern and Contemporary Italy
42C. Italy through Ages in English: Food and Literature in Italy
46. Italian Cinema and Culture in English
50A. Masterpieces of Italian Literature in English: Middle Ages to Baroque
50B. Masterpieces of Italian Literature in English: Enlightenment to Postmodernity
102A-102B-102C. Italian Cultural Experience in English
110. Dante in English
140. Italian Novella from Boccaccio to Basile in Translation
150. Modern Fiction in Translation
152. Italy between Europe and Africa
M158. Women, Gender, and Sexuality in Italian Culture
230A-230B. Folk Tradition in Italian Literature
260A. Alternative Perspectives in Italian Culture: Studies of Folk Tradition in Italian Literature
260B. Women in Italian Culture
260C. Studies in Italian Cinema

Japanese (Asian Languages and Cultures)
70. Images of Japan: Literature and Film
75. Anime
C150. Topics in Japanese Literature and Philosophy
151. Japanese Literature in Translation: Modern
154. Postwar Japanese Culture through Literature
M156. Literature and Technology
157. Classical Japanese Drama: Great Tradition
170. Japanese Tales of Supernatural
172. Fiction and Plays of Floating World
174. Classical Japanese Poetry

Jewish Studies (Near Eastern Languages and Cultures)
M150A. Hebrew Literature in English: Literary Traditions of Ancient Israel—Bible and Apocrypha
150B. Hebrew Literature in English: Rabbinic Judaism
M151A. Modern Jewish Literature in English: Diaspora Literature
151B. Modern Jewish Literature in English: Israeli Literature
175. Modern Israeli Literature Made into Films

Korean (Asian Languages and Cultures)
C150. Korean Literature in Translation: Classical
C151. Korean Literature in Translation: Modern
154. Contemporary Korean Literature through Literature and Film

Polish (Slavic, East European, and Eurasian Languages and Cultures)
152A. Survey of Polish Literature: From the Middle Ages to Neoclassicism
152B. Survey of Polish Literature: Reimagining a Nation
152C. Survey of Polish Literature: Dreaming, Mocking, and Writing "as if"

Portuguese (Spanish and Portuguese)
40A. Portuguese, Brazilian, and African Literature in Translation: Portuguese and Portuguese-African Literature
40B. Portuguese, Brazilian, and African Literature in Translation: Brazilian Literature
46. Brazil and Portuguese-Speaking World
141A. Literature and Film in Portuguese
142C. Travel Narratives, Testimony, Autobiography

Romanian (Slavic, East European, and Eurasian Languages and Cultures)
152. Survey of Romanian Literature

Russian (Slavic, East European, and Eurasian Languages and Cultures)
25–25W. Great Russian Novel
30. Russian Literature and World Cinema
M118. History of Russia, Origins to Rise of Muscovy
119. Golden Age and Great Realists
120. Literature and Revolution
121. Russian Pop Culture
C124C. Studies in Russian Literature: Chekhov
C124D. Studies in Russian Literature: Dostoevsky
C124G. Studies in Russian Literature: Gogol
C124N. Studies in Russian Literature: Nabokov
C124P. Studies in Russian Literature: Pushkin
C124T. Studies in Russian Literature: Tolstoy
125. Russian Novel in Its European Setting
126. Russian Theater: Plays and Performance
M127. Women in Russian Literature
128. Russian Science Fiction
C170. Russian Folklore

Scandinavian (Scandinavian Section)
40–40W. Heroic Journey in Northern Myth, Legend, and Epic
50–50W. Introduction to Scandinavian Literatures and Cultures
C131. Introduction to Viking Age
C133A. Saga
134. Scandinavian Mythology
C137. Old Norse Literature and Society
138. Vikings
C141A. Theory of Scandinavian Novel
141B. Nordic Poetry
141C. Short Story in Scandinavia

142A. Introduction to Nordic Theater and Drama
143A. Scandinavian Detective Fiction
143C. Scandinavian Crime Literature
C145A. Henrik Ibsen
C145B. Knut Hamsun
C146A. August Strindberg
147A. Hans Christian Andersen
C147B. Søren Kierkegaard
147C. Karen Blixen
154. Romanticism
156. Scandinavian Literature of 20th Century
157. Contemporary Nordic Literature
161. Introduction to Nordic Cinema
C163A. Introduction to Danish Cinema
C163B. Introduction to Swedish Cinema
C163C. Introduction to Norwegian Cinema
C166A. Ingmar Bergman
C166C. Carl Dreyer
C171. Introduction to Scandinavian Folklore
172A. Nordic Folk and Fairy Tales
C174A. Minority Cultures in Scandinavia
173A. Popular Culture in Scandinavia
174B. Queer Scandinavia
C175. Introduction to Sami Language and Culture
C180. Literature and Scandinavian Society
C185. Seminar: Scandinavian Literature

Serbian/Croatian (Slavic, East European, and Eurasian Languages and Cultures)
154. South Slavic Literature

Slavic (Slavic, East European, and Eurasian Languages and Cultures)
90. Introduction to Slavic Civilization

South Asian (Asian Languages and Cultures)
150. Classical Indian Literature in Translation

Southeast Asian (Asian Languages and Cultures)
70. Modern Southeast Asian Literature
90. Modern Literatures in Southeast Asia
130. Topics in Southeast Asian Literature

Spanish (Spanish and Portuguese)
60A. Hispanic Literatures in Translation: Spanish Literature
60B. Hispanic Literatures in Translation: Spanish-American Literature
60C. Hispanic Literatures in Translation: Don Quijote

Ukrainian (Slavic, East European, and Eurasian Languages and Cultures)
152. Ukrainian Literature

Vietnamese (Asian Languages and Cultures)
CM155. Topics in Vietnamese Cinema and/or Literature

Yiddish (Germanic Languages)
121A. 20th-Century Yiddish Poetry in English Translation
121B. 20th-Century Yiddish Prose and Drama in English Translation
121C. Special Topics in Yiddish Literature in English Translation
French and Francophone Studies

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Scope and Objectives
The Department of French and Francophone Studies is a major West Coast center for the study of French. In recent decades French critical thought has maintained a dominant position in the Western world. The department seeks to give its students not only a background in the various fields of French and Francophone studies, but also opportunity to relate literary, linguistic, and cultural study to examination of the critical intellectual questions of our time.

The undergraduate lower-division program is designed to provide students with practical competence in French after one year and thorough basic knowledge of the language after two years.

The undergraduate upper-division program is chiefly devoted to perfecting linguistic skills and to the study of French and Francophone culture and literature. Courses in linguistics and business French are also offered. Students graduating with a Bachelor of Arts in French should be fully fluent in French and possess a thorough background in French and Francophone literature and culture. Both Bachelor of Arts degrees lead to graduate studies in French.

The graduate program offers both MA and PhD degrees and comprises training in the various fields of French and Francophone culture, literature, and thought, as well as in literary criticism, analysis, and theory. A number of courses in linguistics and stylistics are also offered.

Undergraduate Study
If students have taken French elsewhere, they must take a placement test administered by the department. Depending on the results of the placement test or with recommendation of an instructor, they may be permitted to enroll in a course of study at a more advanced level.

Requisites to all upper-division courses taken in partial fulfillment of the French majors are French 6, 12, or equivalent. Courses 105 through 109 are not sequential and may be taken in any order, provided the requisites for each course are fulfilled.

No credit is allowed for completing a less advanced course after successful completion of a more advanced course in French grammar and/or composition.

The French major is a designated capstone major. Students are required to complete a capstone seminar that is thematically devised to reflect current trends in the discipline. Through the capstone experience, students work closely with a faculty member on a focused topic of research. They engage in presentations and weekly discussions and write a research paper demonstrating language proficiency, critical and creative thinking, analytical skills, and a cultural perspective.

French BA
Capstone Major
Learning Outcomes
The French major has the following learning outcomes:

- Demonstrated written and oral mastery of the French language
- Demonstrated specific skills and expertise, including research, analysis, and writing
- Identification and analysis of appropriate primary sources
- Conception and execution of a project that identifies and engages with a specialized topic
- Acquisition of working knowledge of scholarly discourse relative to a specialized topic
- Engagement with peers through presentation, discussion, and critique of student work

Preparation for the Major
Required: French 1, 2, 3, 4, 5, 6, 12, or equivalent. Students normally take course 6 before undertaking course 12. Students who receive a grade of A in course 5 may enroll in course 12 concurrently with course 6, with consent of the instructor.

Transfer Students
Transfer applicants to the French major with 90 or more units must complete the following introductory courses prior to admission to UCLA: two years of French and one French literature course.

Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

The Major
Two plans are offered by the department:

Plan I: French/Francophone Studies in Literature and Culture
Required: French 100, 101, two courses from 114A, 114B, and 114C, one senior capstone seminar (191B), and six 4-unit courses in French and Francophone literature and/or culture selected from upper-division offerings in the department in language, civilization, literature, or the arts. One upper-division elective course from outside the department may be substituted in the major program with consent of the undergraduate adviser. Each course must be taken for a letter grade.

Plan II: Interdisciplinary French/ Francophone Studies
Required: French 100, 101, one course from 114A, 114B, or 114C, one senior capstone seminar (191B), four upper-division elective courses in French and Francophone studies, and three upper-division elective courses in fields relevant to French and Francophone studies to be selected from outside the department in consultation with the undergraduate adviser. Each course must be taken for a letter grade.

Plan II, with emphasis on French and Francophone culture, is a core program in French allowing for individual selection of relevant courses in related fields such as gender studies, humanities, linguistics, and social sciences.

It is strongly advised that students who intend to pursue advanced degrees begin preparation for the language requirements at the undergraduate level. If students’ knowledge of French exceeds the preparation usually received in courses preparing for the major and if they demonstrate the requisite attainment in French 100 or 101, they may substitute for those courses in grammar and composition an equivalent number of upper-division courses in the French and Francophone Studies Department in consultation with an adviser. All prospective French majors who are native or quasi-native speakers of French must see the undergraduate adviser before beginning upper-division work in the major.

All majors must complete a minimum of nine courses of appropriate upper-division work in the UCLA French and Francophone Studies Department. Freshmen and sophomores may take up to two courses taught in English, selected from French 164 through 167, in fulfillment of major requirements (if taken in the junior or senior year, these courses count as electives). A maximum of 8 units of course 199 may be applied toward the elective requirements for the major if approved in advance by the undergraduate adviser. Students must maintain a C-
average in upper-division major courses in order to remain in the French major.

Coursework taken on a Passed/Not Passed basis is not acceptable in any area of the major program.

It is recommended that students intending to major in French consult with the undergraduate adviser before enrolling in upper-division courses.

# French and Linguistics BA

## Learning Outcomes

The French and Linguistics major has the following learning outcomes:

- Demonstrated technical mastery of French language pronunciation, history, and structure
- Working knowledge of scholarly discourse relative to a specialized French linguistics topic such as phonology, syntax, or sociolinguistics
- Demonstrated specific skills and expertise acquired in coursework, including speaking, analysis, and writing
- Demonstrated analysis of spoken discourse, including regional variations
- Engagement with peers through discussion and critique on a specialized topic in French linguistics

## Preparation for the Major

**Required:** French 1, 2, 3, 4, 5, 6, 12, or equivalent, Linguistics 20, completion of the third term of a second foreign language. Students normally take course 6 before undertaking course 12. Students who receive a grade of A in course 5 may enroll in course 12 concurrently with course 6, with consent of the instructor.

## Transfer Students

Transfer applicants to the French and Linguistics major with 90 or more units must complete the following introductory courses prior to admission to UCLA: two years of French, one French literature course, and one introduction to linguistics course. Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

## The Major

**Required:** French 100, 101, 104, one course from 114A, 114B, or 114C, two courses from 105, 107, 108, 109, one upper-division French elective course, and Linguistics 103, 110, 120A, 120B. Each course must be taken for a letter grade. Required Lower-Division Courses (8 units): French 6 or equivalent and one course from 12, 14, 41, or 60. Required Upper-Division Courses (20 units): French 100 or 101, and four additional departmental courses in language, culture, or literature to be selected in consultation with an undergraduate counselor.

A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor. Each minor course must be taken for a letter grade, and students must have an overall grade-point average of 2.0 or better in the minor. Successful completion of the minor is indicated on the transcript and diploma.

## Graduate Study

Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Division website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

## Graduate Degrees

The Department of French and Francophone Studies offers Master of Arts (MA), Candidate in Philosophy (CPhiL), and Doctor of Philosophy (PhD) degrees in French and Francophone Studies.

### French

**Lower-Division Courses**

1. **Elementary French.** (4) Lecture, five hours. P/NP or letter grading.
2. **Elementary French.** (4) Lecture, five hours. Enforced requisite: course 1 with grade of C– or better. P/NP or letter grading.
3. **Elementary French.** (4) Lecture, five hours. Enforced requisite: course 2 with grade of C– or better. P/NP or letter grading.
5. **Intermediate French.** (4) Lecture, four hours. Enforced requisite: course 4 with grade of C– or better. P/NP or letter grading.
7. **Intensive First-Year French.** (12) Lecture, 15 hours. All-in-French intensive language program equivalent to first year of college French and designed to develop basic language skills. Additional work in language and media laboratory required. Offered in summer only. P/NP or letter grading.
8. **Intensive Second-Year French.** (8) Lecture, 10 hours; media laboratory, three hours. Enforced requisite: course 3. Intensive course equivalent to first two terms of Intermediate French and designed to improve proficiency in reading, writing, and speaking. Offered in summer only. P/NP or letter grading.
14. Introduction to French Culture and Civilization in English. (5) Lecture, three hours; discussion, one hour. Not open for credit to students with credit for course 14W. Study of contemporary French institutions and issues in cultural, political, and socioeconomic realms. P/NP or letter grading.

14W. Introduction to French Culture and Civilization in English. (5) Lecture, three hours; discussion, one hour. Enforced requisite: English Composition 3 or 3H or English as a Second Language 36. Not open for credit to students with credit for course 14. Study of contemporary French institutions and issues in cultural, political, and socioeconomic realms. Satisfies Writing II requirement. Letter grading.


19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current interest. May be repeated for credit with topic change. P/NP or letter grading.

20. Seminar: France and Francophone Studies. (1) Seminar, two hours. Seminar lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be repeated toward honor credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

60. French and Francophone Novel. (5) Lecture, three hours; discussion, one hour. Study of literary masterpieces produced by writers from France and Francophone world (Canada, Africa, Caribbean, etc.) from 17th to early 21st century. P/NP or letter grading.

89. Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to lower-division lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

89HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to lower-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

99. Student Research Program. (1 to 2) Tutorial (supervised research or other scholarly work), three hours per week per unit. Entry-level research for lower-division students under guidance of faculty mentor. Students must be in good academic standing and enrolled in minimum of 12 units (excluding this course). Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP grading.

Upper-Division Courses

100. Written Expression: Techniques of Description and Narration. (5) Lecture, three hours. Requisite: course 10 or 10H. Writing assignments follow close analysis of relevant texts, film, and related grammatical structures. Examination of vocabulary and structures associated with descriptive writing and French verb tense system required for narration. P/NP or letter grading.


104. Theory and Correction of Diction. (4) Lecture, three hours. Enforced requisite: course 5. Taught in French. Study of contemporary French culture and literature, including satire, novel, theater, philosophers, and theoretical writings. May be repeated for credit with topic change. P/NP or letter grading.


107. Advanced Oral Expression. (4) Lecture, three hours; discussion, one hour. Preparation and analysis of current events and sociocultural issues; techniques of argumentation. P/NP or letter grading.


112. Medieval Foundations of European Civilization. (4) Lecture, three hours; discussion/film screenings, two hours. Medieval texts, culture, social structure, and political history as they lay bases of European modernity. P/NP or letter grading.


114A. Medieval and Renaissance Literature. (5) Lecture, three hours. Requisite: course 12. Masterpieces of medieval and Renaissance literature, including ex- amples of epic (La Chanson de Roland), romance (Chrétiens de Troyes’ Yvain), and Renaissance prose and poetry (including Marot, Du Bellay, Ronsard, Rabelais, Marguerite de Navarre, and Montaigne). P/NP or letter grading.

114B. 17th and 18th Centuries. (5) Lecture, three hours. Requisite: course 12. Survey of major literary movements and writers of the period, including works by Hugo, Baudelaire, Balzac, Stendhal, Flaubert, Zola, Gide, Proust, Sartre, Robbe-Grillet, and Duras. P/NP or letter grading.


116. Studies in Renaissance French Culture and Literature. (4) Lecture, three hours. Taught in French. Study of Renaissance culture and literature, including de La Pèpède and 16th-century poetry, linguistic and poetic revolution, novel and early prose, and late French humanism. May be repeated for credit with topic change. P/NP or letter grading.


118. Studies in 18th-Century French Culture and Literature. (4) Lecture, three hours. Taught in French. Study of 18th-century French culture and literature, including satire, novel, theater, philosophers, and theoretical writings. May be repeated for credit with topic change. P/NP or letter grading.


120. Studies in 20th-Century French Culture and Literature. (4) Lecture, three hours. Taught in French. Study of 20th-century French culture and literature, including early 20th-century writers, surrealism, literature from 1915 to 1945, post-World War II literature, existentialism, and drama, poetry. May be repeated for credit with topic change. P/NP or letter grading.

121. Studies in Francophone Cultures and Literatures. (4) Lecture, three hours. Enforced requisite: course 5. Taught in French. Study of Francophone cultures and literatures, including works by poets, playwrights, and novelists from Caribbean, North Africa, Quebec, and sub-Saharan Africa, and both colonial and postcolonial works. May be repeated for credit with topic change. P/NP or letter grading.

130. Contemporary and Francophone French Cultures. (4) Lecture, three hours. Requisite: course 12 or 100. Taught in French. Study of contemporary French literature and Francophone world (Africa, Asia, Caribbean, Quebec), government, institutions, cultural, economic, social, and political issues. May be repeated for credit with topic change. Letter grading.


137. French and Francophone Intellectual History. (4) Lecture, three hours. Requisite: course 12 or 100. Taught in French. Exploration of themes that address particular problem of French literature, civilization, or ideas. May be repeated for credit with topic change. P/NP or letter grading.

138. Contemporary French Theory. (4) Lecture, three hours. Requisite: course 12 or 100. Taught in French. Study of French theorists (Barthes, Baudrillard, Cixous, Derrida, Foucault, Irigaray) and major concepts in contemporary French thought, with attention to influence on and application to literary and nonliterary texts. May be repeated for credit with topic change. P/NP or letter grading.


141. French Cinema. (4) Lecture, three hours. Study of French cinema and cinematographers in general, thematic, and sociocultural aspects. May be repeated for credit with topic change. P/NP or letter grading.

142. Francophone Cinema. (4) Lecture, three hours. Study of Francophone cinema (Africa, Caribbean, postcolonial communities in France) and cinematographers in general, thematic, and sociocultural aspects. May be repeated for credit with topic change. P/NP or letter grading.

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160. Francophone Cultures in English. (4) Lecture, three hours. Study of historical, anthropological, legal, literary, or filmic texts to provide students with broad view of some main issues in field of colonial and post-colonial Francophone studies. P/NP or letter grading.

161. French and Francophone Theater in Translation. (4) Lecture, four hours. Through plays of 20th century, analysis of struggles of individuals and social groups in contexts that are historical, political, philosophical (existentialist, absurd), and cultural (colonialism and conformism). May be repeated for credit with topic change. P/NP or letter grading.


189. Advanced Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to undergraduate lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

189HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed asadjunct to Undergraduate Lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

191A. Variable Topics Research Seminars in Translation. (4) Seminar, three hours. Research seminars on topics to be announced each term. Topics include major writers, genres, cultural movements, or theoretical practices. Reading, discussion, and development of culminating project. May be repeated for credit with consent of major advisor. P/NP or letter grading.

191B. Variable Topics Research Seminars: French. (4) Seminar, three hours. Taught in French. Research seminars on topics to be announced each term. Topics include major writers, genres, cultural movements, or theoretical practices. Reading, discussion, and development of culminating project. May be repeated for credit with consent of major advisor. P/NP or letter grading.

195. Community or Corporate Internship in French. (4) Tutorial, to be arranged. Limited to juniors/seniors. Internship in supervised setting in community agency or business. Students meet on regular basis with instructor and provide periodic reports of their experience. May be repeated for credit. Individual contract with supervising faculty member required. P/NP or letter grading.

198. Honors Research in French. (4) Tutorial, three hours. Limited to junior/senior French majors with 3.5 departmental grade-point average. Development and completion of honors thesis or comprehensive research project under direct supervision of faculty member. May be repeated for credit. Individual contract required. Letter grading.

199. Directed Research or Senior Project in French. (2 to 4) Tutorial, three hours. Limited to juniors/seniors. Supervised individual research or investigation, including preparation of a paper or project required. May be repeated for credit. Individual contract required. P/NP or letter grading.

Graduate Courses


201. Techniques of Literary Analysis. (4) Lecture, three hours. Practice in close analysis of literary texts, including explication de texte. S/U or letter grading.

202. Cultural Studies. (4) Lecture, three hours. Introduction to theoretical approaches to popular and mass culture, and to postcolonial and Francophone cultures. Topics include emergent disciplines and theories such as sociology and structuralism, city, revolution, avant-garde strategies, media, diasporas during postwar modernization, Algerian War, May 68, and beyond. Theorists include Barthes, de Certeau, Bourdieu, Baudrillard, Lyotard, Ross, Roy Chow, Virilio, S/U or letter grading.

203. Contemporary Francophone Literature. (4) Lecture, three hours. Study of Francophone African, Carribean, Vietnamese, or Quebec literatures and cultures, with specific attention to issues of cultural context, language, colonialism, anticolonialism, nationalism, resistance and dissidence, and postcolonial theory. S/U or letter grading.

204. Studies in Autobiography. (4) Lecture, three hours. Introduction to theories of autobiography and subjectivity, and to the genre in literatures in French across centuries. Topics include early modern approaches to self-writing, Rousseau and emergence of modern self, women’s autobiography in France and Francophone world. Theorists may include Georges Guédron, Philippe Lejeune, Paul de Man, Jacques Derrida, Hélène Cixous, Michel Foucault, Pierre Bourdieu, Toril Moi. S/U or letter grading.


207. Studies in History of Ideas. (4) Seminar, three hours. Particular problems in history of literary thought and ideas. May be repeated for credit. S/U or letter grading.

208. Studies in Literary Criticism. (4) Seminar, three hours. Readings in literary criticism, theory, and literature from any period of French literature. May be repeated for credit. S/U or letter grading.

209. Studies in Literary Genre. (4) Lecture, three hours. Advanced research and study of literary genres such as poetry, drama, fiction, autobiography, or performance and of theory of these genres. S/U or letter grading.

M210. Paleography of Latin and Vernacular Manuscripts, 900 to 1500. (4) (Same as Classics M218, English M215, and History M218.) Lecture, three hours. Discussion, two hours. Introduction to history of Latin and vernacular manuscript book from 900 to 1500 to (1) train students to make informed judgments with regard to place and date of origin, (2) provide training in accurate reading and transcription of later medieval scripts, and (3) examine manuscript book as witness to changing society that produced it. Focus on relationship between Latin manuscripts and vernacular manuscripts with regard to their respective presentation of written texts. S/U or letter grading.


215. Studies in Middle Ages. (4) Seminar, three hours. Examination of nature of cross-cultural, cross-linguistic, and cross-confessional exchange in medieval and early modern periods and France’s role in it. S/U or letter grading.


220. 20th Century. (4) Lecture, three hours. Overview, both historical and analytical, of 20th-century French literature set in context of several key critical topics that interrogate canonical interpretation. Letter grading.

296. Research Methods and Writing. (2) Seminar, two hours. Advanced study of current topics in literary and cultural analysis and critical theory. Discussion of current research and literature in student’s specialty of faculty member teaching course. S/U grading.

375. Teaching Apprentice Practicum. (1 to 4) Seminar, to be arranged. Preparation: apprentice personnel employment as teaching assistant, associate, or fellow. Teaching apprenticeship under active guidance and supervision of regular faculty member responsible for curriculum and instruction at UCLA. May be repeated for credit. S/U grading.

495. Teaching French at College Level. (4) Seminar, three hours. Discussion of topics in French and Francophone studies and literature. S/U grading.

596. Directed Individual Studies or Research. (2 to 4) Tutorial, to be arranged. S/U or letter grading.

597. Preparation for Second-Year Review or PhD Qualifying Examinations. (2 to 8) Tutorial, to be arranged. May be repeated for maximum of 16 units. S/U grading.

598. Research for and Preparation of MA Thesis. (2 to 4) Tutorial, to be arranged. Maximum of 4 units may be applied toward MA degree requirements. S/U grading.


FRESHMAN GENERAL EDUCATION CLUSTERS
See Cluster Program
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Nancy M. Mithio, PhD
Rafael Pérez-Torres, PhD
Sherene H. Razack, PhD (Penny Kanner Endowed Professor of Women’s Studies)

Lucia Re, PhD, Dottore in Lettere
Abigail C. Saguy, PhD
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Shannon E. Speed, PhD
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Safiya U. Noble, PhD
Kathryn Norberg, PhD
Sharon J. Traweek, PhD

Assistant Professors
Julian T. Anezi, PhD
Joshua J. Guzman, PhD
Judy J. Han, PhD
Zeynep K. Korkman, PhD

Scope and Objectives
The Department of Gender Studies offers interdisciplinary academic programs that are both nationally and transnationally oriented. The undergraduate program offers a Bachelor of Arts degree and a minor; the graduate program offers Master of Arts (for PhD students only, no terminal master’s degree) and PhD degrees.

Students develop critical reasoning and analytical skills, a deep appreciation for complexities of power and asymmetries in gender relations across time, class, and cultures, and conceptual tools for social change.

The Gender Studies curriculum challenges the pervasive theory/practice divide within the academy. In both undergraduate and graduate courses, students are taught a broad range of methodological and analytical tools. Core undergraduate courses contextualize foundational theories and key analytic concepts within the study of different historical periods and social movements. In designating these courses power, knowledge, and bodies, the department identifies three primary areas in which feminist and queer inquiry has been concentrated over time, enabling students to trace grounding concepts, key controversies, and the emergence of new theoretical paradigms.

The department has long enjoyed recognition for its strengths in areas including women’s history, feminist science studies, and gender and the law. Over the past decade, it has become a leading program for interdisciplinary intersectional feminist scholarship on gender, sexuality, race, class, and nationality; and has built a strong reputation in transnational feminist studies, studies of settler colonialism, neoliberalism, racial violence, cultural politics, migration, social movements, affect, visual culture, and disability, as well as feminist policy studies, critical prison studies, women of color feminism, queer of color critique, and queer theory.

Undergraduate Study
The Gender Studies major is a designated capstone major. Students are required to complete a senior seminar in which they conduct original research while studying readings that consider how disciplinary and interdisciplinary research has been conducted and critiqued. Through their senior seminar work, students produce a significant work that may include an original research paper, a media project, or an in-depth literature review. They are expected to demonstrate working knowledge of the field of gender studies; understand key theoretical approaches in the study of women, gender, and sexuality; have ability to construct well-written analytic essays and present their work orally; and conduct a research project that involves the consultation of scholarly literature and presentation of evidence to support an argument.

Gender Studies BA Capstone Major
The major in Gender Studies may be taken alone or in conjunction with another Letters and Science major. In the case of a double major, no more than five courses may be applied toward both majors.

Learning Outcomes
The Gender Studies major has the following learning outcomes:

• Demonstrated working knowledge of the field of gender studies
• Understanding of key theoretical approaches in the study of women, gender, and sexuality
• Demonstrated ability to construct well-written analytic essays and give an oral presentation
• Conduct a research project that involves the consultation of scholarly literatures and presentation of evidence to support an argument

Admission
To be admitted to the major, students must have completed Gender Studies 10, be in good standing, and formally register with the department. They are encouraged to declare their major as early as possible and to discuss their proposed course of study with the undergraduate adviser.

Students are encouraged to draw on diverse UCLA resources in creating their program of study. They may pursue traditional and/or innovative subjects in fields ranging from the humanities and fine arts to the social and life sciences. In addition to courses on the gender studies approved list, students may petition to have diverse courses accepted, including courses outside the College of Letters and Science, independent studies, or field study courses.

Each course applied toward the major must be taken for a letter grade, and students must have a grade-point average of 2.0 or better in gender studies courses to receive credit for completing the program. Courses in which they receive grades of C– or lower may not be applied toward the required courses in the major.

Preparation for the Major
Required: Gender Studies 10. Students must also complete departmental lower-division requisites, as applicable, for upper-division gender studies courses.

Transfer Students
Transfer applicants to the Gender Studies major with 90 or more units must complete the following introductory courses prior to admission to UCLA: one multidisciplinary gender studies course and departmental lower-division requisite courses.

Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

The Major
The major is designed to (1) impart core concepts in theory and critical analysis, research design, and methods and (2) provide students with exposure to a range of feminist and queer scholarship across disciplines. To achieve these goals, the major is divided into three categories.

Required: At least 11 upper-division courses (minimum of 4 units each) as follows: (1) three core courses—Gender Studies 102, 103, 104, (2) seven elective courses; one upper-division tutorial (minimum of 4 units) selected from course 195, 197, or 199 may be applied toward the elective requirement (this limit does not apply to course 198A or 198B), and (3) course 187 (Capstone Seminar).

Honors Program
The honors program is open to advanced junior and senior Gender Studies majors with a 3.6 grade-point average in gender studies courses and a minimum 3.4 overall GPA who have no outstanding incomplete grades, and to majors who demonstrate ability to do honors work by submitting a paper to the department chair for approval.

To qualify for honors at graduation, students must successfully complete three successive terms of
honors research (courses 198A, 198B, 198C) with their faculty sponsor and receive a grade of B+ or better on their research paper/project. Course 198 may be applied toward the elective requirement; courses 198B and 198C are in addition to the minimum required courses. More information is available from the undergraduate counselor in the department office.

**Gender Studies Minor**

The Gender Studies minor augments and enriches study in a traditional field. Students participating in this program are required to complete both a departmental minor and the Gender Studies minor.

To enter the minor, students must have an overall grade-point average of 2.0 or better and formally register with the department undergraduate advisors in 1120 Rolfe Hall. They are encouraged to declare the minor as early as possible.

**Required Lower-Division Course (5 units): Gender Studies Students.**

The students must also complete departmental lower-division requisites, as applicable, for upper-division gender studies courses.

**Required Upper-Division Courses (24 units):**

1. One core course from Gender Studies 102, 103, or 104, (2) 120SL, or 187 or an equivalent senior research seminar approved in advance, and (3) four upper-division courses (minimum of 4 units each) from the approved gender studies course list. No more than 4 units of courses 195 through 199 may be applied. A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor.

Each minor course must be taken for a letter grade, and students must have an overall grade-point average of 2.0 or better in the minor. Courses in which students receive grades of C– or lower may not be applied toward the core requirements in the minor. Successful completion of the minor is indicated on the transcript and diploma.

**Graduate Study**

Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Division website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

**Graduate Degrees**

The Gender Studies Department offers Master of Arts (MA) and Doctor of Philosophy (PhD) degrees in Gender Studies.

**Gender Studies Lower-Division Courses**

10. Introduction to Gender Studies. (5) Lecture, three hours; discussion, one hour. Introduction to key concepts in study of sex and gender. Exploration of topics such as gender socialization, body image, sexuality, masculinity, and women’s subordination. Special emphasis on interaction of gender with other identity markers such as race, nation, ethnicity, sexuality, class, and other differences. P/NP or letter grading.

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their field emphasizing many paths of discovery at UCLA. P/NP grading.

89. Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to lower-division lecture course. Exploration of topic of greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

89HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to lower-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

99. Student Research Program. (1 to 2) Tutorial (supervised research or other scholarly work), three hours per week per unit. Entry-level research for lower-division students under the direction of a faculty mentor. Students must be in good academic standing and enrolled in minimum of 12 units (excluding this course). Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP grading.

**Upper-Division Courses**

101W. Writing Gender. (5) Lecture, three hours. Requires: English Composition 3. Development of critical reading and writing skills necessary for academic success. Students engage assigned readings in conversation with weak grammatical and syntactical structures, and continuous and development of paper topic as result of in-class discussions and formal writing exercises. Small writing groups assist students in understanding relationships between reading and writing. Students gain understanding of writing process, including topic conceptualization, organization of project, argumentation, and discussion. P/NP grading.

102. Power. (4) Lecture, three hours; discussion, one hour (when scheduled). Enforced requisite: course 10. Consideration of feminist social movements that have identified and challenged gender-based subordination and ways feminist theorists have conceived and critiqued traditional theories and research. How have women’s and other social movements defined and challenged social, political, and economic subordination? How have feminist theorists addressed subject of power? How do empire, colonialism, liberalism, neoliberalism, and globalization produce distinctive forms of gendered violence, gendered knowledge, and gendered subjectivities? How are gender and sexuality produced and regulated by law, nation, and economy? P/NP or letter grading.

103. Knowledge. (4) Lecture, three hours; discussion, one hour (when scheduled). Enforced requisite: course 10. Exploration of social production of knowledge about gendered subjects and in scientific contexts. Students engage key issues in feminist theory and feminist epistemology. How do feminist scholars identify and frame research questions? How is knowledge about marginalized populations produced and reproduced? How has feminism challenged dominant understandings of knowledge, rationality, objectivity, and scientific method? How have social movements sought to challenge traditional models of knowledge production? P/NP or letter grading.

104. Bodies. (4) Lecture, three hours; discussion, one hour (when scheduled). Enforced requisite: course 10. Exploration of histories of body, with focus on topics such as sex identities, sexuality, gendered violence, and reproductive politics. How has science, medicine, and culture sought to distinguish male from female in different historical periods and locations? How have meanings of term sex and gender varied across time and place? How has gendered body been represented in different visual cultures? How have embodied identities been produced in different historical and geographic contexts? What is relationship between embodiment and desire? P/NP or letter grading.

M104C. Diversity in Aging: Roles of Gender and Ethnicity. (4) (Same as Chicana and Chicano Studies M102B, Gerontology Affairs M101, and Social Welfare M104C.) Lecture, four hours. Exploration of complexity of variables related to diversity of aging population and variation in aging process. Examination of gender and ethnicity within context of both physical and social aging, in multidisciplinary perspective utilizing faculty from variety of fields to address issues of diversity. P/NP or letter grading.

105. Topics in Women and Medicine. (4) Lecture/ discussion, three hours. Examination of medical conditions of women in context of issues that impact women’s health, healthcare, and healthcare providers. Discussion of basic health concepts and self-care; consideration of a women’s health specialty and ways to deliver healthcare to women. Exploration of roles and lifestyles of female physicians. P/NP or letter grading.

M105A. Premodern Queer Literatures and Cultures. (5) (Same as English M101A and Lesbian, Gay, Bisexual, Transgender, and Queer Studies M101A.) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3. Survey of discrete period of queer literature from beginning to circa 1850. Works by such writers as Sappho, Plato, Marlowe, Shakespeare, and Thomas Gray may be included. May be repeated for credit with topic or instructor change. P/NP or letter grading.

M105B. Queer Literatures and Cultures, 1850 to 1970. (5) (Same as English M101B and Lesbian, Gay, Bisexual, Transgender, and Queer Studies M101B.) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3. Survey of discrete period of queer literature and culture from circa 1850 to 1970. Works by such authors as Walt Whitman, Radclyffe Hall, Gertrude Stein, Virginia Woolf, Langston Hughes, Tennessee Williams, Henry Blake Fuller, and James Baldwin may be included. May be repeated for credit with topic or instructor change. P/NP or letter grading.

M105C. Queer Literatures and Cultures after 1970. (5) (Same as English M101C and Lesbian, Gay, Bisexual, Transgender, and Queer Studies M101C.) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3. Examination of cultural production, specifically literature, produced by queers after Stonewall rebellion in New York City, widely regarded as the beginning of modern lesbian and gay rights movement in U.S. Writings and films by such authors as Andrew Hol- leran, Leslie Feinberg, Ache Obejas, Essex Hemphill, Audre Lorde, Cheryl Dunye, and Alison Bechdel may be included. May be repeated for credit with topic or instructor change. P/NP or letter grading.

M105D. Studies in Queer Literatures and Cultures. (5) (Same as English M101D and Lesbian, Gay, Bisexual, Transgender, and Queer Studies M101D.) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3. Variable specialized studies course in queer literatures and cultures. Topics focused on particular problem or issue in terms of its relationship to queer cultures and writings. May be repeated for credit with topic or instructor change. P/NP or letter grading.

M106. Feminist Critical Perspectives Honors Col- legium M106,) Seminar, four hours. Designed for ju- nior/seniors. Study of four female cultural archetypes—abscending wife/mother, infanticide mother, intellectual woman, and vapid woman—as they ap- pear in their classical and modern manifestations in European and American cultures. P/NP or letter grading.

M107A. Studies in Women’s Writing. (5) (Same as English M107A.) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English
Composition 3. Focus on women writers that may include historical, regional, national, or thematic emphasis, with possible topics such as authorship, self-writing, sexuality, gender, and genre. May be repeated for credit with topic or instructor change. P/NP or letter grading.

M107B. Studies in Gender and Sexuality. (5) Same as English M107B and Lesbian, Gay, Bisexual, Transgender, and Queer Studies M107B. Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: course 3. Exploration of literary and cultural production through lens of gender and sexuality. Depending on instructor, emphasis may be on historical, national, comparative, or thematic and include other intersectional vectors of identity and representation such as race and ethnicity. May be repeated for credit with topic or instructor change. P/NP or letter grading.

108S. Violence against Women. (4) Lecture, three hours. Requisite: course 10. Factual information and theoretical analyses regarding various forms of violence against women and girls in their homes, workplaces, and communities through critical examination of social structures and social science research. Letter grading.


M110C. Topics in Feminist Philosophy: Metaphysics and Epistemology. (4) Same as Philosophy M187C. Lecture: three hours; discussion, one hour (when scheduled). Requisite for Gender Studies majors: course 10; for other students: one philosophy course. Examination of depth of different theoretical positions on gender and women as they have been applied to philosophy of metaphysics and epistemology. Emphasis on theoretical contributions made by new scholarship on women in philosophy. Critical study of concepts and principles that arise in discussion of women's rights and liberation, Philosophical approach to feminist theories. May be repeated for credit with consent of instructor. Letter grading.

M111. Women and Film. (6) Same as Film and Television Studies M111. Lecture, eight hours; discussion, one hour. Historical issues and critical approaches to women and cinema that may include authorship, stardom, female genres, and images of women in Hollywood cinema, alternative cinema, and independent cinema from silent era to present. Letter grading.

112. Special Topics in Women and Arts. (4) Lecture, three hours. Requisite: course 10. Selected topics relating feminist theories to creation of art by women, with consideration of cultural contexts in which they work. Approach to be comparative, cross-cultural, and interdisciplinary. Consideration of artistic practice by women in relation to issues of power, representation, and access. May be repeated twice, except for credit toward Gender Studies major. P/NP or letter grading.

113. Sex Work. (4) Lecture, three hours. Enforced requisite: one of a variety of contemporary feminist sex work courses both in U.S. and abroad from feminist perspective. Examination of how race, class, and gender affect experience and perception of erotic labor, and consideration of critically feminist responses by range of authors to sex work. Topics include brothels, phone sex, strip clubs, sex tourism, military prostitution, and international traffic in persons. Reading of texts by sex workers and as well as articles from current philosophical and policy debates about prostitution. P/NP or letter grading.

M114. Introduction to Lesbian, Gay, Bisexual, Transgender, and Queer Studies. (5) Same as Lesbian, Gay, Bisexual, Transgender, and Queer Studies M114. Lecture, three hours; discussion, one hour. Introduction to history, politics, and scientific study of lesbians, gay men, bisexuals, transgenders, and queer people; examination of sexuality and gender as categories for investigation; interdisciplinary theories and research on minority sexualities and genders. P/NP or letter grading.

M115. Topics in Study of Sexual and Gender Orientation, (4) Same as Lesbian, Gay, Bisexual, Transgender, and Queer Studies M115. Lecture, three hours. Requisite: course 10 or M114. Studies in arts, humanities, social sciences, and/or life sciences on aspects of sexual orientation, gender identity, and lesbian, gay, and/or bisexual issues; variable topics may include changing concepts, history and political change, life and health experiences, and queer or transgender theories; multilingual and cross-cultural emphases. May be repeated for credit. Letter grading.


117. Introduction to Queer Latina/Latino Studies. (4) Lecture, three hours. Examination of production of Latina and Latino identities as they emerge within contemporary literature, music, film, and performance art. Engagement with texts that posit queer analytical approach to study how Latinidad is informed by and challenges dominant concepts. Out of dominant notions of Latina in popular culture. Critical engagement of limits of knowledge production around Latina/Latino identity to develop new analytical tools that abide by queer theory or propose a new queer or solution to its political consequences in contemporary U.S. culture. Study draws upon feminist and queer artists such as Ana Mendieta, Nao Bustamente, Asco, Carmelita Tropicana, Gloria Anzaldúa, Felix-Gonzales Torres, Gil Cuadros, and Gregg Araki. P/NP or letter grading.

M118. Queering American History. (4) Same as Lesbian, Gay, Bisexual, Transgender, and Queer Studies M118. Lecture, four hours. Enforced requisite: one prior lesbian, gay, bisexual, transgender, and queer studies course. History of sexual and gender minorities in U.S. topics include changing norms, romantic friendships, medical discourse, liberation politics, post-Stonewall culture, AIDS, transgender movement, queer theory, and politics. P/NP or letter grading.

120SL. Feminist Praxis: Community-Based Learning. (4) Seminar, three hours; fieldwork, four hours. Preparation: at least two gender studies core courses. Requisites: course 10 and one course from 102, 103, or 104. Seminar combining field research with practical experience working on gender issues and connecting these experiences to methodological and theoretical themes explored in gender studies core courses. Community partner determines selection and advance by instructor in consultation with Center for Community Learning. Letter grading.

M121. Topics in Gender and Disabilities. (4) Same as Disability Studies M121. Lecture, three and one half hours. Limited to juniors/seniors. Ways in which issues of disability are affected by gender, with particular attention to various roles, positions, and concerns of women with disabilities. Approach is intersectional, exploring social, political, and cultural hierarchies. Topics may include historical, sociocultural, and medical perspectives on disability. May be repeated for credit with topic or instructor change. P/NP or letter grading.

120LSL. Feminist Praxis: Community-Based Learning. (4) Seminar, three hours; fieldwork, four hours. Preparation: at least two gender studies core courses. Requisites: course 10 and one course from 102, 103, or 104. Seminar combining field research with practical experience working on gender issues and connecting these experiences to methodological and theoretical themes explored in gender studies core courses. Community partner determines selection and advance by instructor in consultation with Center for Community Learning. Letter grading.

M122. Masculinities. (4) Lecture, three hours. Enforced requisite: one course in Masculinity as theorized by feminists and shaped by race, class, age, and nation. Topics include feminist theories of masculinity, male body, childhood and adolescent socialization, sport, media images, and black masculinity; globalization and masculinity, and men's movements in 1970s and beyond. Special emphasis on social science approaches and methodologies. P/NP or letter grading.

123. Gender, Race, and Class in Latin American Literature and Film, 1850 to 1950. (4) Seminar, three hours. Requisite: course 10. Readings and discussion in English. Comparative survey of cultural expression in Latin America, with emphasis on works produced or set in late-19th and early-20th century. Historical and social circumstances of women in different Latin American cultural contexts, with particular concentration on how gender, sexuality, race, and class are absorbed and reflected in film within this genealogy, examination of how cultural production sustains or interrogates categories used to construct social, political, and cultural hierarchies. Topics include representations of authors such as women's participation in formation of national cultures, engagement with artistic movements, and strategies of self-figuration. P/NP or letter grading.

M124. Sex, Race, and Difference in Transnational Film. (6) Same as Film and Television M124. Lecture, three hours; discussion, one hour. Drawing on feminist media studies, training of students in media literacy so they acquire necessary skills to critically interrogate film as medium of communication and to appreciate how film provides lens to examine some of most critical issues of our time. Development of understanding of how film can be an agent to effect change. Examination of role of film in both exemplifying and reconfiguring social conditions. How films can enable understanding of contemporary and historical relationships between mobility, coercion, and migration; colonialism and settler colonialism; Orientalism, geographies of race and sexuality; diaspora; transnational conceptions of sexual desire and embodiment; immigration and religious difference; and criminalization of racial difference. P/NP or letter grading.

125. Perspectives on Women's Health. (4) Lecture/discussion, three hours. Requisite: course 10. Examination in depth of various ways women provide healthcare in both paid and unpaid capacities and of political, economic, and social factors affecting women as recipients of healthcare. P/NP or letter grading.

M126. Feminist and Queer Theory. (5) Same as English M126 and Lesbian, Gay, Bisexual, Transgender, and Queer Studies M126. Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: English Composition 3. Recommended: one course from 102, 103, 104, English 120, or 121. Investigation of key concepts and debates around gender, sexuality, and kinship, with focus on their interrelated significance for making of culture. Readings to be interdisciplinary, with possible emphasis on different areas or fields. Focus on specific historical cultures. May be repeated for credit with topic or instructor change. P/NP or letter grading.

M127. Women in Russian Literature. (4) Same as Russian M127. Lecture, three hours. Designed for juniors/seniors. Lectures and readings in English. Introduction to alternative tradition of women's writings in Russia and Soviet Union. Emphasis on images of women expressed in this tradition as compared with those found in works of contemporary male writers. P/NP or letter grading.


129. Women and Gender in Caribbean. (4) Seminar, three hours. Requisite: course 10. Exploration of way in which gender discourses have been central to making of Caribbean history and to some most enduring experiences in European empire, capitalist development, and coercive labor. Emphasis on women who have lived through slavery and servitude and who continue to live under systems of globalization and neoliberal exploitation. How Caribbean women have historically empowered themselves and
their communities, working in various ways to survive, radicalize, and transform the worlds. Ways in which ideas about gender and sexuality have shaped emergence of new nations and national cultures in Caribbe, and consideration of some dominant images of women in public space and popular culture. Exploration of complicated ways in which in gender, race, class, sexuality, and national identity intersect in different Caribbean contexts. P/NP or letter grading.

130. Women of Color in the U.S. (4) Lecture/discussion, three hours. Examination of experiences of African American, Asian American, Chicana, and Native American women in order to assess intercultural dynamics, and gender. Contemporary and/or historical and/or theoretical perspectives on racism and its relation to feminism as defined by women of color. P/NP or letter grading.

131. Feminist Politics in Korea and Diaspora. (4) Lecture, three hours. Examination of gender, religious, and social movements in Korea and Korean diaspora through interdisciplinary feminist and critical area studies approach. Use of postcolonial, anti-racist, and international feminist lens to discuss Korea and Korean diaspora as site of inquiry and field of knowledge. Close examination of several contemporary political issues, focusing on salient political theories and oppositional mobilized by ethnic/racial, class, and gender groups, and wide range of ideas, institutions, and practices that are animated by complex politics of gender, sexuality, and religion. Topics include Korean and international feminist activism concerning Korean imperialism, and militarism, anti-communism and xenophobia; pro-democracy movements and labor organizing; Catholic and Buddhist solidarity and sanctuaries for political prisoners; and women's resistance to gendered, racialized, and classed inequalities. Attention to Anglic-European and Third World women. Concurrently scheduled with Chicana and Chicano Studies M133A-M133B. History of Women in Europe. (4–4) Lecture, three hours. Restrquisite: course 10. Overview of gender studies in Europe from 800 to 1715; M 133A. Women and Men; M 133B. Women and Women. P/NP or letter grading.

CM132A. Chicana Feminism. (4) Same as Chicana and Chicano Studies CM130A. Lecture, one and one half hours. Restrquisite: course 10. Overview of Chicana feminist thought and debate. Examination of theories and practices of women who identify as Chicana feminist. Analysis of writings of Chicanas who do not identify as feminist but whose practices attend to gender inequities faced by Chicanas both within Chicana/Chicano community and dominant society. Attention to Anglo-European and Third World women. Concurrently scheduled with course CM132B. P/NP or letter grading.


CM133A-M133B. History of Women in Europe. (4–4) (Same as History M133A-M133B.) Lecture, three hours; discussion, one hour (when scheduled). Restrquisite: for juniors/seniors. History of political structures from ancient times to present. Topics include the transformation of medieval Europe, impact of the Protestant Reformation, gender and religious wars, into the modern world. P/NP or letter grading.

M133C. History of Prostitution. (4) Same as History M133C.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. History of prostitution from ancient times to present. Topics include the transformation of medieval Europe, impact of the Protestant Reformation, gender and religious wars, into the modern world. P/NP or letter grading.

142. Race, Gender, and Punishment. (4) Seminar, three hours. Restrquisite: course 10. Examination of what crisis scholars have called prison industrial complex. U.S. has largest prison population in world. How and why is this? Who is imprisoned? What historical conditions have contributed to this massive explosion in prisoner populations? Does prison function as regime? How have politicians used imprisonment as response to economic transforma-


CM135C. Bilingual Writing Workshop. (4) Same as Chicana and Chicano Studies CM135C. Lecture, four hours. Limited to juniors/seniors. Writing sample required; access to course webpage mandatory; need not be enrolled; term paper, discussion, and theoretical discussion of bilingual creative expression through genre of short fiction. Bilingualism as both politics and aesthetics to be central theme. Discussion and analysis of Chicana/Chicano and Latina/Latino short story collections. Peer critique of weekly writing assignments. Emphasis on narrative techniques such as characterization, plot, conflict, setting, point of view, and dialogue, and magical realism as prevailing Chicana/Latina style. Some attention to process of manuscript preparation, public reading, and publication. Letter grading.

M136. Music and Gender. (5) Same as Musicology M136.) Lecture, three hours; discussion, one hour. Restrquisite: course 10. Examination of gender ideologies in several musical cultures; representations of gender, body, and sexuality in music composed by male and female musicians; contributions of women to the translation of and popularization of popular music, methods in feminist and gay/lesbian theory and criticism. Letter grading.

M137E. Work Behavior of Women and Men. (4) Same as Psychology M137E.) Lecture, two and one half hours. Restrquisite: course 10 or Psychology 10. Designed for seniors. Examination of work behaviors of women and men. Topics include antecedents of a career choice, job findings, leadership, performance evaluation, employee benefit evaluation bias, job satisfaction, and interdependence of work and family roles. P/NP or letter grading.

138. Gender and Popular Culture. (5) Lecture, three hours; screenings, two hours. Limited to juniors/se-
niors. Conceptual tools and critical skills necessary to rigorously interrogate gender politics of popular culture in the U.S. context. Consideration of theories of popular culture and exploration of diificultive power and ideological force exerted by popular culture in American public life. Examination of specific represen-
tations of male and female bodies to understand vi-
sual culture and how it reinforces various social roles as well as relationship between visual stereotypes and re-
gimes of power. Consideration of debates concerning transformative potential of pop culture and exploration of capacity and limits of popular culture as agent of social change. Letter grading.

139. Women and Art in Contemporary U.S. (4) Lecture/discussion, three hours. Restrquisite: course 10. Ex-
ploration of some significant cultural issues of con-
temporary American women's art movement. Repre-
sentation, resistance, and critical intervention in relation to gender, race, and class. Emphasis on visual and performance arts as these reflect various per-
spectives of feminism. Letter grading.

140. Gender, Culture, and Capitalism. (4) Lecture, three hours. Dynamic investigation of culture as terrain of production—production of resistance to gendered, racialized, and classed inequalities through active analysis of advertisements, television shows, Disney fairy tales, and performative forms like fortunetelling. Focus on relationships between gender, culture, and capitalism through lenses of transnational feminism, as well as exploration of gendered processes of production and consumption of culture under capitalism. P/NP or letter grading.

141. Gender, Culture, and Capitalism. (4) Lecture, three hours. Dynamic investigation of culture as terrain of production—production of resistance to gendered, racialized, and classed inequalities through active analysis of advertisements, television shows, Disney fairy tales, and performative forms like fortunetelling. Focus on relationships between gender, culture, and capitalism through lenses of transnational feminism, as well as exploration of gendered processes of production and consumption of culture under capitalism. P/NP or letter grading.

142. Race, Gender, and Punishment. (4) Seminar, three hours. Restrquisite: course 10. Examination of what crisis scholars have called prison industrial complex. U.S. has largest prison population in world. How and why is this? Who is imprisoned? What historical conditions have contributed to this massive explosion in prisoner populations? Does prison function as regime? How have politicians used imprisonment as response to economic transforma-
American Indian cultures in early 17th century to rise of women’s rights movement in mid-19th century. P/NP or letter grading.

M147C. Transnational Women’s Organizing in Americas. (4) (Same as Chicana and Chicano Studies CM147C.) Lecture, four hours. Feminist analysis of transnationalization of gender and race as central to processes of globalization and essential to economic and political struggles encompassed in transnational power relations. Exploration of how questions of gender influence ideas around economic policies and impact local actors and their communities. In time when people, capital, cultures, and technology move freely across borders, increasing frequency, discussion of process of accelerated globalization has been linked to feminization of labor and migration, environmental degradation, questions of diaspora, sexuality, and cultural displacement, as well as growing global militarization. Problems and issues created by globalization and cultural, social, and political responses envisioned by transnational organizing. P/NP or letter grading.

M147D. History of Women in U.S., 1860 to 1980. (4) (Same as History M147D.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Introduction to major themes in history of American women from abolition of slavery and Civil War to rise and consequences of second-wave feminism. P/NP or letter grading.

M149. Media: Gender, Race, Class, and Sexuality. (5) (Same as Communication M149 and Labor Studies M149.) Lecture, three hours; activity, one hour. Limited to junior/senior Communication and Gender Studies majors and Labor Studies minors. Examination of manner in which media culture produces people to perceive various dominant and deminated and/or colonized groups of people. Ways in which women, gay, lesbian, bisexual, transgendered, racial, and ethnic marginalized peoples, classes, relations, and other subaltern or outcast are presented or misrepresented in media. Investigation and employment of practical applications of communications and feminist theories for understanding ideological nature of stereotypes of representation through use of media, guest presentations, lectures, class discussions, and readings. Introduction to theory and practice of cultural studies. Letter grading.

M152. Gender, Disability, and Education. (4) Lecture, three hours. Drawing on critical theory, study engages intersections of disability as it is theorized, constructed, and lived as post/neocolonial condition. Study of scholarship between global North and South, as well as interdisciplinary fields of feminist disability studies—which assumes disability is always inextricably linked to other social markers, such as gender, sexuality, and social—indigenous studies—which studies complex and diverse cultures and histories, and their impacts on society. Study locates relationship to disability, gender, and education through deconstruction of lens and explores topics of phenomenology of lived body and relations to land. P/NP or letter grading.

M154F. Marriage, Family, and Kinship. (Formerly numbered M151.) (Same as Anthropology M154F.) Lecture, three hours. Requisite: Anthropology 3. Examination of understandings of kinship in cross-cultural perspective and impact of kinship on interpersonal relationships, gender roles, and sociocultural systems. Use of material from formal and ethnographic accounts. P/NP or letter grading.

M154G. Selected Topics in Gender Systems. (4) (Formerly numbered M154G.) (Same as Anthropology M154G.) Lecture, three hours. Recommended prepa- ration: any gender studies course. Designed for junior/senior social sciences majors. Comparative study of women’s lives and gender systems and cultures from anthropological perspective. Critical analysis of current literature using life history, genealogy, case study, and presentations. Consult Schedule of Classes for topics and instructors. May be repeated for credit with topic change. P/NP or letter grading.

M154R. Women and Social Movements. (4) (Formerly numbered M155R.) (Same as Anthropology M145R.) Lecture/discussion, three hours. Reconcil-
M172. Afro-American Woman in U.S. (4) (Same as African American Studies M172 and Psychology M172.) Lecture, two and one half hours. Designed for juniors/seniors. Examines African American women's experiences from the 19th century to the present. May be repeated for credit with topic or instructor change. P/NP or letter grading.

M173B. Women in 20th-Century Japan. (4) (Same as History M173B.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Japanese women in Japanese and world history through state documents, autobiographical voices, contemporary television, and other varying historical sources, including topics such as women and war. Enforced requisite: course CM178. Limited to 30 students. P/NP or letter grading.

M174. Sociology of Family. (4) (Same as Sociology M174.) Lecture, three hours; discussion, one hour. Theory and practice of contemporary family structure and functions, including historical changes, variant family patterns, family as institution, and influence of contemporary society on family. P/NP or letter grading.

M175. Women and Cities. (4) (Same as Urban Planning M175.) Lecture, three hours. Limited to juniors/seniors. Examination of relationship between women and cities. (1) How cities have affected women's opportunities for economic and social equality. (2) Women's contributions to development of U.S. cities, and (3) contemporary strategies and efforts to create urban environments that reflect women's needs and interests. P/NP or letter grading.

CM178. Critical Media Literacy and Politics of Gender: Theory and Production. (4) (Same as Education CM178.) Seminar, three hours. Corequisite: course CM178L. Use of range of pedagogical approaches to theory and practice of critical media literacy that necessarily involves understanding of new technologies and media forms. Study of both theory and production techniques, including analysis of media and critical media literacy projects. Concurrently scheduled with course CM278L. Letter grading.


M180B. Historical Perspectives on Gender and Science. (4) (Same as History M180B.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Historical cases illustrating how gender informs practical and conceptual science. Topics include gendered conceptions of nature, persons of man of science, role of women in scientific revolution, scientific investigations of women and femininity. P/NP or letter grading.

185. Special Topics in Gender Studies. (4) Lecture, three hours. Preparation: one prior gender studies course. Designed for juniors/seniors. Specialized or advanced study in one area within gender studies. May be repeated for credit with topic and/or instructor change. P/NP or letter grading.

M185A. Special Topics in American Indian and Gender Studies. (4) (Same as American Indian Studies M185A.) Lecture, three hours. Variable topics in American Indian gender studies. May be repeated for credit with topic and/or instructor change. P/NP or letter grading.

M186A. Women and Gender, Prehistory to 1792. (4) (Same as History M186A.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Exploration of history of women, gender, and sexuality from prehistory to 1792. First half deals with period before written history and asks when did gender appear? How and why did patriarchy develop? Topics include evolution of women's bodies, appearance of gender, women's contribution to Neolithic revolution, significance of Goddess artifacts, creation myths, and women and sexuality in different religions. Course may be repeated for credit with topic or instructor change. P/NP or letter grading.

M186B. Global Feminism, 1850 to Present. (4) (Same as History M186B.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Introduction to movements for women's rights (educational, political, economic, sexual, and reproductive) around world and over one and one half centuries. P/NP or letter grading.

187. Senior Research Seminar: Gender Studies. (4) Seminar, three hours. Requisites: courses 10, 102, 103, 104. Designed for advanced junior/senior Gender Studies majors or minors. In-depth study of major theme in feminist research. Themes vary by instructor and term. Students pursue independent research related to course theme, with guidance from instructor, then share and critique other student works in progress. May be repeated for credit with topic change. Letter grading.

195. Community or Corporate Internships in Gender Studies. (2 or 4) Tutorial, eight hours. Requisites: coursework 102 or 103 or 104, or two upper-division gender studies courses not in 189 to 199 series. Limited to juniors/seniors. Internship in supervised setting coordinated through Center for Community Learning. Comparative study of race, gender, and indigeneity in relation to contemporary workplace dynamics. Students complete weekly written assignments, attend biweekly meetings with graduate student mentor, and write final research paper. Faculty sponsor and graduate student coordinator will consult on selected readings and examine issues related to internship site. Individual contract with supervising faculty member required. P/NP or letter grading.

197. Individual Studies in Gender Studies. (4) Tutorial, four hours. Preparation: at least two upper-division gender studies courses. Requisite: coursework 102 or 103 or 104. Designed for juniors/seniors. Individual intensive study, with scheduled meetings to be arranged between faculty member and student. Content may include themes in feminist discourse, application of feminist theoretical perspectives to disciplinary field, or emerging areas of inquiry. Assignments may include evidence of mastery of subject matter required. May be repeated for credit. Individual contract required. Letter grading.

198A-198B-198C. Honors Research in Gender Studies. (4-4-4) Tutorial, four hours. Preparation: at least two upper-division gender studies courses. Requisite: coursework 102 or 103 or 104. Limited to juniors/seniors. Individual intensive study, with scheduled meetings to be arranged between faculty member and student. Content may include themes in feminist discourse, application of feminist theoretical perspectives to disciplinary field, or emerging areas of inquiry. Assignments may include evidence of mastery of subject matter required. May be repeated for credit. Individual contract required. Letter grading.

199. Directed Research in Gender Studies. (2 or 4) Tutorial, to be arranged. Preparation: at least two upper-division gender studies courses, minimum 3.0 grade-point average. Requisite: coursework 102 or 103 or 104. Limited to junior/senior Gender Studies majors and minors. Supervised individual research or investigation under guidance of faculty mentor on specific topic within gender studies culminating in paper or project required. May be repeated for credit. Individual contract required. Letter grading.

Graduate Courses

201. Introduction to Interdisciplinary Methods in Gender Studies. (4) Seminar, three hours. Preparation: coursework 103 or 104. Introduction to interdisciplinary methods and discussion of their own research. Demystification of methods, particularly of interdisciplinary sort, to introduce students to wide range of faculty research and to incorporate questions of
ethics. Focus on interdisciplinary gender research that intervenes in knowledge production. Particular issues include approaches to interdisciplinary methods of research, introduction to feminist intersectional and queer theories, effective use of reflexivity and positionality in research and writing, and incorporating ethics into research design, conduct, and teaching. May be repeated once for credit with instructor change. Letter grading.

202. Key Theories and Concepts in Gender Studies. (4) Lecture/discussion, three hours. Relationship of debates in field to key intellectual and social movements (such as Marxism, poststructuralism, critical race theory). Use of recent (postcolonial and transnational) studies that have generated feminist critiques and contributed to development in feminist thought. Issues include analysis of central theoretical works in field and survey of key methodological examination of key concepts and debates in gender studies, and identification of debates that have generated key analytical frameworks in feminist analysis and gender studies scholarship. May be repeated once for credit with instructor change. Letter grading.

203. Epistemologies of Gender. (4) Lecture/discussion, three hours. Focus on debates concerning methods of inquiry in gender and sexuality studies and exploration of feminist theories, methodologies, political economy, and queer theory as critical research tools and as revisions of how feminisms have shaped and been shaped by existing methodologies. Issues include examination of how feminisms have shaped and been shaped by processes of knowledge-production within and across disciplines, cultural, and para-digms, and importance of intersectional, standpoint, and queer theory as critical research tools and as responses to issues of power, domination, oppression, and other loci of identity and difference. May be repeated once for credit with instructor change. Letter grading.

204. Research Design and Professional Development. (4) Seminar, three hours. Required of third-year graduate students graduate students. To be taken after all other coursework is complete; primarily geared toward proposal writing for dissertations and outside grants. Process of constructing dissertation proposals by providing structured process with incremental steps toward writing of dissertation proposal draft. Professional development for students as they prepare to enter academia or other professions. Help in preparing for first-year seminar, examination of job/interview process, development of materials to assist in teaching, and analysis of various job markets. May be repeated once for credit with instructor change. Letter grading.

205. Subfields in Gender Studies. (4) Seminar, three hours. Departmental topics course that offers in-depth aspects of field. Limits of investigation set by individual instructor. S/U or letter grading.

210. Topics in Women and Public Policy. (4) Lecture, four hours. Designed for graduate gender studies graduate students. To be taken after all other coursework is complete; primarily geared toward proposal writing for dissertations and outside grants. Process of constructing dissertation proposals by providing structured process with incremental steps toward writing of dissertation proposal draft. Professional development for students as they prepare to enter academia or other professions. Help in preparing for first-year seminar, examination of job/interview process, development of materials to assist in teaching, and analysis of various job markets. May be repeated once for credit with instructor change. Letter grading.

215. Topics in Study of Sexuality and Gender. (4) Seminar, three to four hours. Designed for graduate students. Multidisciplinary studies on aspects of sexual orientation, gender identity, and gender theory, interdisciplinary research on minority sexualities, and social construction/deconstruction of gender. May be repeated for credit with topic or instructor change. Letter grading.

220. Cultural Studies in Gender, Race, and Sexuality. (4) Seminar, three hours. Designed for graduate students. In-depth study of representations of gender and sexuality in popular culture and performance, with special attention to racial/ethnic inclusivity in flow of artistic cultural production across national borders, theorizing femiqueer as diasporic or multicultural forms. Letter grading.

CM232A. Chicana Feminism. (4) (Same as Chicana and Chicano Studies CM214.) Lecture, four hours. Enforced requirement: courses for Chicana and Chicano Studies majors. Examination of Chicana identity and political consciousness of women who identify as Chicana feminist. Analysis of writings of Chicanas who do not identify as feminist but whose practices attend to gender inequities faced by Chicana women by Chicana community and dominant society. Attention to Anglo-European and Third World women. Concurrently scheduled with course CM132A, S/U or letter grading.

M226. Feminist Theory, (4) as Sociology (M228). Seminar, three hours. Designed for graduate students. Analysis of current American feminist theory relevant to sociologists. Exploration of critiques of second wave feminism by working class feminists and/or feminists of color, feminist scholars from other countries, and recent "antifeminist" feminists. Discussion of directions for future feminist sociology. Letter grading.

CM243. Healing, Ritual, and Transformation. (4) (Same as World Arts and Cultures CM240.) Lecture, four hours. Designed for graduate students. Examination of role of healers, historically and contemporary, in the use of psycho- theological functions served by rites of passage and healing rituals and of role of arts in healing troubled communities. Concurrently scheduled with course CM143. S/U or letter grading.

M252. Selected Topics in Sociology of Gender. (4) (Same as Sociology M252.) Lecture, two hours; discussion, two hours. Designed for graduate students. Seminar on selected topics in sociology of gender. May be repeated for credit. Letter grading.

M253A. Seminar: Current Problems in Comparative Education. (4) (Same as Education M253A.) Seminar, four hours. Examination of some of most influential critical theorists such as Marx, Nietzsche, Foucault, Fanon, and Beauvoir and their contributions to critique of contemporary education, society, and politics. S/U or letter grading.

M255. Cross-Cultural Perspectives on Gender. (4) (Same as Sociology M295.) Seminar, three hours. How does gender manifest itself in lives of different groups of women in U.S. and abroad? Are universal analytical categories or united feminist movements possible or is gender too different cross-culturally? S/U or letter grading.

M259A-M259B. History of Women. (4–4) (Same as Anthropology M243.) Seminar, three units. S/U grading.

M263P. (Same as Anthropology M243.) Seminar, three units. S/U grading.

M266. Feminist Theory and Social Sciences Research. (4) (Same as Education M266.) Lecture, four hours. Examination of how diverse feminist social theories of last quarter century have both challenged and strengthened conventional social sciences theories and their methodologies. Introduction especially to feminist standpoint theory, distinctive critical theory methodology now widely used in social sciences. Letter grading.


CM278. Critical Media Literacy and Politics of Gender: Theory and Production. (4) (Same as Education CM278.) Seminar, three hours. Corequisite: course CM178. Lecture, to be arranged. Use of range of pedagogical approaches to theory and practice of critical media literacy that necessarily involves understanding of new technologies and media forms. Study of both theory and production techniques to inform student analysis of media and cultural media literacy projects. Concurrently scheduled with course CM178. Letter grading.

CM278L. Critical Media Literacy and Politics of Gender: Laboratory. (2) (Same as Education CM278L.) Laboratory, two hours. Corequisite: course CM278. Hands-on production experience as integral component of course CM278. Concurrently scheduled with course CM178L. Letter grading.

285. Special Topics in Women's Studies. (4) Lecture, four hours. Enforced requirement: topics for graduate students. Selected topics or special problems. In-depth study of aspects of feminist theory or research methods or gender analysis within disciplinary studies in women's studies, race studies, queer studies, indigenous studies, and other coursework is complete; primarily geared to advanced graduate students. Topics may focus on race or gender too different cross-culturally? S/U or letter grading.

296. Doctoral Roundtable. (2) Research group meeting, two hours. Preparation: satisfactory completion of PhD program first year. Requisites: at least two courses from 201, 202, 203, 210. Limited to program PhD students. Interactive seminar with focus on disciplinary and interdisciplinary issues, feminist scholars, and ethnographical, teaching, and professional development. May be repeated for credit. S/U grading.

375. Teaching Apprentice Practicum. (1 to 4) Seminar, to be arranged. Preparation: apprentice personnel employment as teaching assistant, associate, or fellow. Requisite or corequisite: course 495. Teaching apprenticeship under active guidance and supervision of regular faculty member responsible for curriculum and instruction at UCLA. May be repeated for credit. S/U grading.

495. Feminist Pedagogy. (2) Seminar, two hours. Preparation: appointment as teaching assistant in department. Introduction to feminist methods of teaching, with emphasis on critical theory and de-emphasis on hierarchy. Required of students while serving as teaching assistants (first time only) in undergraduate gender studies courses. May be repeated for credit. S/U grading.

596. Directed Individual Study or Research. (2 to 12) Tutorial, to be arranged. Requisites: courses 201, 202, 203. Directed individual research and study in area related to women's studies and arranged individually by student with instructor. May be repeated for credit. S/U grading.

597. Preparation for MA Comprehensive Examination or PhD Qualifying Examinations. (2 to 12) Tutorial, eight hours. Limited to graduate students. Reading and preparation for written MA comprehensive examination or PhD qualifying field examinations. May be repeated for a maximum of 12 units. S/U grading.


**GEOGRAPHY**
*College of Letters and Science*

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Geography
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Gregory S. Okin, PhD, Chair

**Professors**
John A. Agnew, PhD
Stephan A. Bell, PhD
Judith A. Carney, PhD
Jared M. Diamond, PhD
C. Cindy Fan, PhD
Thomas W. Gillespie, PhD
Susanna B. Hecht, PhD
Helga M. Lentner, PhD
Dennis P. Lettenmaier, PhD
Glen M. MacDonald, PhD (John Muir Memorial Endowed Professor of Geography)
Gregory S. Okin, PhD (Alexander von Humboldt Endowed Professor of Geography)
Marilyn N. Raphael, PhD
David L. Rigby, PhD
Ananya Roy, PhD (Meyer and Renee Luskin Professor of Inequality and Democracy)
Yongwei Sheng, PhD
Eric S. Sheppard, PhD (Alexander von Humboldt Endowed Professor of Geography)
Michael E. Shin, PhD
Michael C. Stopper, PhD
Yongkang Xue, PhD

**Professors Emeriti**
Charles F. Bennett, Jr., PhD
William A.V. Clark, PhD
Michael R. Curry, PhD
J. Nicholas Entrikin, PhD
Gerry A. Hale, PhD
Antony R. Orme, PhD
Melissa Savage, PhD
Allen J. Scott, PhD
Laurence C. Smith, PhD
Werner H. Terjung, PhD
Norman J.W. Thrower, PhD
Stanley W. Trimble, PhD
Hartmut S. Walter, PhD

**Associate Professors**
Lieba B. Faier, PhD
Jamie M. Goodwin-White, PhD
Adam D. Moore, PhD

**Assistant Professors**
Kyle G. Cavanaugh, PhD
Juan C. Herrera, PhD
Kelly A. Kay, PhD
Shaina S. Potts, PhD

**Scope and Objectives**
Geography is the study of the natural world and how humans have changed it. It examines the physical Earth and life on it, looking at the world’s diverse cultures, economies, and the environmental problems they produce.

Geography addresses many issues about the contemporary world. Some are local, such as documenting the development of ethnic neighborhoods within Los Angeles. Others are regional, such as determining the best locations for nature reserves in California. Many are global, such as the study of greenhouse gases and how they affect climates, culture and resource issues in developing countries, and the impact of information technologies on people in different places.

The work of geographers often takes them out of the classroom into the field to collect information on topics that range from the settlement of new immigrants to the distribution of endangered species, the erosion of shorelines, and the location of high-tech businesses. On other occasions, geographers work in laboratories, using techniques such as computer analysis of satellite photographs to look for changes in river courses and computer modeling of shifts in global vegetation patterns and the distribution of human populations. Research is also conducted in libraries and archives, probing documentary sources on human interaction with the natural world and how that world is imagined.

Department of Geography graduates have a wide variety of career opportunities because of their combination of geographical/environmental perspectives and technical skills. UCLA geography students have gone on to become university scholars, school teachers, members of governmental and non-governmental planning, development, and conservation agencies, business executives, lawyers, and specialists in geographical information analysis for government and private business. Because of its sophisticated focus on the relationship of the global to the local, geography is particularly useful for those who wish to pursue careers with an international focus.

The department has one of the top programs in the U.S. and offers two undergraduate majors that lead to the Bachelor of Arts degree: Geography and Geography/Environmental Studies. The Geography major combines a broad background in the field with specific tracks. The Geography/Environmental Studies major focuses on the impact of humans on the natural environment. Also offered are undergraduate minors in Geography, Geography/Environmental Studies, and Geospatial Information Systems and Technologies.

The department also offers the PhD degree in Geography (an MA degree may be earned in the process of completing PhD requirements). Student research projects are conducted in collaboration with a faculty adviser and advisory committee. Graduate students work in most major areas of geography and on projects around the world. Graduate alumni of the department have teaching positions at many leading universities in the U.S. and abroad.

**Undergraduate Study**

**Geography BA**
The Geography major allows students to combine a broad background in the field with more specific interests and career goals. Students can select classes in several areas of geography such as urban, economic, cultural, environmental, physical, or biogeography. They should consult with the undergraduate adviser to plan a program suitable to their personal objectives.

**Learning Outcomes**
The Geography major has the following learning outcomes:

• Comprehensive knowledge of the main strands of physical and human geography, including familiarity with major theoretical perspectives
• Command of various geographical methods and techniques such as remote sensing, cartography, and field methods
• Skills in collecting and analyzing geographical data

**Preparation for the Major**
Required: Three courses (15 units) as follows: Geography 1 or 2, 3 or 4 or 6, and Statistics 12. Each course must be taken for a letter grade.

**Transfer Students**
Transfer applicants to the Geography major with 90 or more units must complete as many of the following introductory courses as possible prior to admission to UCLA: one physical geography or biogeography course, one cultural geography or economic geography course, and one statistics course.

Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

**The Major**
Required: Eleven upper-division geography courses (44 units minimum), each taken for a letter grade. All geography upper-division courses numbered 100 and higher may be applied toward the major, with a few exceptions. Contact the advising office for more information.

**Geography/Environmental Studies BA**
The major in Geography/Environmental Studies develops and deepens students’ understanding of environmental issues; it explores problem-solving approaches from an interactive people/nature viewpoint and involves analysis of social, physical, and biotic environmental systems. The major’s uniqueness lies in its emphasis on its geographical perspective of human impacts on natural systems, as well as of implications of global change on local and regional human systems.

**Learning Outcomes**
The Geography/Environmental Studies major has the following learning outcomes:

• Comprehensive knowledge of the main strands of physical and human geography, including familiarity with major theoretical perspectives
• Command of various geographical methods and techniques such as remote sensing, cartography, and field methods
• Familiarity with a range of environmental problems at different geographical scales, their analysis, modeling, and various policy responses to them
• Skills in collecting and analyzing geographical data
Preparation for the Major
Required: Geography 1 or 2, 3 or 4 or 6, 5, 7, and Statistics 12. Each course must be taken for a letter grade. Students are strongly advised to complete all preparation for the major courses before beginning upper-division work in the major.

Transfer Students
Transfer applicants to the Geography/Environmental Studies major with 90 or more units must complete as many of the following introductory courses as possible prior to admission to UCLA: one physical geography or biogeography course, one cultural geography or economic geography course, one people and ecosystems course, and one statistics course. Geography 7 must be taken at UCLA in order to fulfill the preparation for the major requirement, and, as the enforced requisite for courses 167, 168, and 169. Geography 7 must be taken prior to enrolling in these courses. Students taking this course as a requisite only may take it as P/NP grading. Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

The Major

Geography/Environmental Studies majors are advised to complete the required courses in the human systems core before taking courses in the environmental studies and natural systems core.

Honors Program
The departmental honors program is designed for Geography and Geography/Environmental Studies majors who are interested in completing a research project that culminates in an honors thesis. To qualify for graduation with departmental honors, students must have completed at least one upper-division geography course at UCLA with a grade of C or better, have an overall grade-point average of 2.0 or better, and file a petition in the Geography Department Advising Office, 1255 Bunche Hall.

To enter the minor, students must have completed at least one geography course at UCLA with a grade of C or better, have an overall grade-point average of 2.0 or better, and file a petition in the Geography Department Advising Office, 1255 Bunche Hall. Transfer credit for any of the above is subject to departmental approval.

A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor, and at least three of the five upper-division courses must be taken in residence at UCLA. Transfer credit for any of the above is subject to departmental approval.

Each minor course must be taken for a letter grade. Successful completion of the minor is indicated on the transcript and diploma.

Geospatial Information Systems and Technologies Minor
The Geospatial Information Systems and Technologies minor is designed to provide students with a strong background in the use, application, and development of geospatial/environmental research techniques and methods. To enter the minor, students must have completed Geography 7 with a grade of B or better, have an overall grade-point average of 2.0 or better, and file a petition in the Geography Department Advising Office, 1255 Bunche Hall. For majors in Geography or Geography/Environmental Studies, only two upper-division courses may overlap between the major and this minor.

A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor, and at least three of the five upper-division courses must be taken in residence at UCLA. Transfer credit for any of the above is subject to departmental approval.

Each minor course must be taken for a letter grade and students must have an overall grade-point average of 2.0 or better in the minor. Successful completion of the minor is indicated on the transcript and diploma.

Graduate Study
Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Division website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Graduate Degrees
The Department of Geography offers Master of Arts (MA), Candidate in Philosophy (CPhil), and Doctor of Philosophy (PhD) degrees in Geography, and the
Geography

Lower-Division Courses

1. Earth's Physical Environment. (5) Lecture, three hours; laboratory, two hours. Study of Earth's physical environment, with particular reference to nature and distribution of landforms, climate, and their significance to people. P/NP or letter grading.


3. Cultural Geography. (5) Lecture, three hours; discussion, two hours. Introduction to cultural geography of modern world, with examination of key concepts of space, place, and landscape as these have shaped and been shaped by connections between societies and their natural environments. Examples from variety of landscapes and places since 1800 and especially from Los Angeles region. P/NP or letter grading.

4. Globalization: Regional Development and World Economy. (5) Lecture, three hours; discussion, two hours. Economic geography explores spatial distribution of all forms of human productive activity at number of geographical scales—local, regional, national, and global. Key theme is impact of increasingly powerful global economic forces on organization of production, P/NP or letter grading.

5. People and Earth's Ecosystems. (5) Lecture, three hours; laboratory, two hours. Exploration of ways in which human activity impacts natural environment and how modification of environment can eventually have significant consequences for human health. Examination, using case studies, of real environmental problems that confront us today. P/NP or letter grading.


7. Introduction to Geographic Information Systems. (5) Lecture, three hours; laboratory, two hours. Designed for freshmen/sophomores. Introduction to fundamentals and principles and concepts necessary to carry out sound geographic analysis with geographic information systems (GIS). Reinforcement of key issues in GIS, such as geographic coordinate systems, map projections, digital analysis, and visualization of spatial data. Laboratory exercises use database query, manipulation, and spatial analysis to address real-world problems. P/NP or letter grading.

8. Field and Seminar: Geography. (4) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP or letter grading.

9. Field Seminar: Special Topics in Geography. (3) Seminar, three hours. Enforced requisites: course 1, 2, 5, 10, or 11. Exploration of special topics within the Department during previous term. P/NP or letter grading.


109. Biogeography of Plant and Animal Invasions. (4) Formerly numbered 109.) Lecture, three hours; reading period, one week. Requisite: course 1 or 2 or 5. Examination of theories and examples of invasion of new environments by plants and animals introduced through natural processes or by human activity. P/NP or letter grading.

110. Geographic Studies. (4) Formerly numbered M117.) (Same as Sociology and Evolutionary Biology M131.) Lecture, three hours; field trips. Requisite: course 1 or Life Sciences 7B. Designed for juniors/seniors. Development of understanding of basic principles of biogeography, with focus on understanding links between ecosystem structure and function. Emphasis on energy and water balances, nutrient cycling, plant-soil-microbe interactions, landscape heterogeneity, and human disturbance to ecosystems. P/NP or letter grading.

Upper-Division Courses

Environmental Studies and Natural Systems

101. Principles of Geomorphology. (4) Formerly numbered 100.) Lecture, three hours; reading period, one hour. Requisite: course 2 or 5. Development of geomorphic principles that shape earth's landforms, with emphasis on weathering, mass movement, and fluvial erosion, transport, deposition; energy and material transfers; spatial and time considerations. P/NP or letter grading.

102. Soils and Environment. (4) Formerly numbered 102.) Lecture, three hours; discussion, one hour; field trips. Introduction to nature, physical environment, and soils; functions of soils in plant growth and development; principles of soil behavior. P/NP or letter grading.

102L. Soils and Environment: Field. (1) (Formerly numbered 102L.) (Same as Agriculture and Evolutionary Biology M127 and Environment M102L.) Laboratory, one hour; field excursions. Corequisite: course 101. Field trip preparation and supplementary discussion. P/NP or letter grading.

103. Soil and Water Conservation. (4) Formerly numbered M103.) Lecture, three hours; discussion, one hour. Enforced prerequisite: course 1 or 2 or 5. Examination of natural forces producing soil and soil formations. Application of basic principles of ecology and evolution to ecosystems of agriculture, animals, man, and urban places. P/NP or letter grading.

104. Climatic Impacts on Natural Systems. (4) Formerly numbered M104.) Lecture, three hours; field trips. Examination of impacts of human disturbance to ecosystems. P/NP or letter grading.

105. Environmental Conservation. (4) Formerly numbered M105.) Lecture, three hours; field trips. Examination of human interaction with tropical climate systems and human-induced climate change in tropics. Use of climatological information to foster sound environmental management of climate-related resources in tropics. P/NP or letter grading.

106. Oceanography. (4) Formerly numbered M106.) (Same as Atmospheric and Oceanic Sciences M106.) Lecture, three hours; laboratory, one hour. Enrollment limited to students in College Honors Program. Design for freshmen/sophomores. Exploration of knowledge and tools to solve complex problems in contemporary applied climatology, including current practices, influence of climate on environment, and human influence on changing climates. P/NP or letter grading.


109. Environmentalism: Past, Present, and Future. (4) Formerly numbered M115.) (Same as Environment M125 and Urban Planning M165.) Lecture, three hours; discussion, one hour. Enforced prerequisite: course 1 or 2 or 5. Examination of contemporary environmental questions as they relate to broader set of questions about nature of development, sustainability, and equity in environmental decision-making. Exploration of issues in broad context, including global climate change, rise of pandemics, deforestation, and environmental justice impacts of war. Letter grading.

110. Environmental Change. (4) Formerly numbered M110.) Lecture, three hours; reading period, one hour. Enforced prerequisite: course 1 or 2 or 5. Enforced requisites: course 1, 2, or 5. Focus on human activity in environmental modification. Focus on impact of natural and anthropogenic changes on forests. P/NP or letter grading.

111. Honors Seminars. (1) (Formerly numbered M111.) Designed for sophomores/juniors. Exploration of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP or letter grading.
M127. Global Environment and Development: Problems and Issues. (4) (Formerly numbered M128.) (Same as Urban Planning CM166.) Lecture, three hours; discussion, one hour. Designed for juniors/seniors. Questions of population, resource use, third world development, and environment. Analysis of global economic restructuring and its connections to changing organization of production and resulting environmental impacts. Case studies from Africa, Latin America, and Asia. Letter grading or P/NP.

M130. Food and Environment. (4) (Formerly numbered M132.) Lecture, three hours. Designed for juniors/seniors. Thematic orientation to food systems and their role in cultural and nutritional transformations. P/NP or letter grading.

M131. Human Impact on Biophysical Environment. (4) (Formerly numbered M109.) (Same as Environment M131.) Lecture, three hours; reading period, one hour. Designed for juniors/seniors. Examination of history, mechanisms, and consequences of interactions between humans and environment. Exploration in depth of three thematic topics (deforestation, desertification, and greenhouse gas increase and ozone depletion) and four major subjects (soil, biodiversity, water, and landforms). P/NP or letter grading.

M133. Human Tropics. (4) (Formerly numbered 113D.) Lecture, three hours. Requisite: course 2 or 5 or Life Sciences 7B. Designed for juniors/seniors. Examination of humid tropics, with emphasis on rainforests, their ecological principles, and forms of land use. Letter grading.


M136. Health and Global Environment. (4) (Formerly numbered 125D.) Lecture, three hours; reading period, one hour. Impact of environment and lifestyle on individual and public health from a geographical perspective, with examples from both developed and developing countries. P/NP or letter grading.


M139B-139C. Problems in Geography. (4–4) (Formerly numbered 158E–158F.) Seminar, three hours; reading period, one hour. Designed for juniors/seniors. Seminar course in which students carry out intensive research projects developed from courses within one concentration. P/NP or letter grading. 139B: Biogeography; 139C: Culture and Environment in Modern World.

Human Systems

140. Social Geography. (4) (Formerly numbered 147.) Lecture, three hours; discussion, one hour. Study of spatiality of social differences such as race, class, gender, age, sexuality, location. Critical explorations of identity, subjectivity, inequality, and spatial structures. Importance of space and place in social life. P/NP or letter grading.

141. Cultural Geography of Modern World. (4) (Formerly numbered 148D.) Lecture, three hours; discussion, one hour. Designed for juniors/seniors and graduate students. Historical and structural approach to cultural geography of modern world system, with particular emphasis on structure and functioning of its core, semi-periphery, and periphery. P/NP or letter grading.

M142. Past People and Their Lessons for Our Own Future. (5) (Formerly numbered M153S.) (Same as Anthropology M148 and Honors Collegium M152.) Lecture, two hours; discussion, two hours. Examination of modern and past people that met varying fates, as background to examining of how other modern people are coping or failing to cope with similar issues. Letter grading.

M144. Feminist Geography. (4) (Formerly numbered M146.) (Same as Gender Studies M146.) Lecture, three hours; discussion, one hour. Critical engagement of gendered consciousness and gender as spatial process, analysis of feminist geographic theory and methods, landscapes of gender, challenges of representing gender. Spaces of femininity, masculinity, and sexuality. P/NP or letter grading.

145. Slavery and Human Trafficking. (4) Lecture, three hours; discussion, two hours (when scheduled); reading period, one hour. Offered either as 4-unit course, with or without course work credit, or 3-unit course with discussion sessions. Requisite: one course from 3, 4, Anthropology 3, Gender Studies 10, or Sociology 1. Limited to juniors/seniors. Exploration of how, why, and to what ends human trafficking has been conceptualized as global problem that warrants international response. Examination of recent activist, government, and media responses, and reflection on what is and is not accomplished by them. Questions of human trafficking are implicitly geographical, requiring consideration of ways freedom is spatially defined and how movement across borders is encouraged and moderated. Mapped responses to trafficking, connections to freedom, rights, ethics, embodiment, representa- tion, and governance of human trafficking. What people mean when they speak of human trafficking as slavery. Meanings of slavery and freedom in world today using examples from U.S. and Europe, with focus on Philippines as case study for exploring both contemporary examples and historical forms of enslavement. P/NP or letter grading.

146. Political Geography. (4) (Formerly numbered 140D.) Lecture, three hours; reading period, one hour. Designed for juniors/seniors. Spatiality of political activity, spatial constitution of political power, control over space as a political strategy. Studies at local, national, state, and global scales. P/NP or letter grading.

149. Border Studies: Globalization, Nation, Identity. (4) (Formerly numbered 119D.) Lecture, three hours; discussion, one hour (when scheduled). Analysis of history, production, and functions of contemporary borders. Designed to broaden understanding of and challenge dominant narratives about many physical, political, and conceptual borders that shape our daily lives, from national boundaries to security fences to discoveries about race and gender. P/NP or letter grading.


151. Uneven Development Geographies: Prosperity and Impoverishment in Third World. (4) (Formerly numbered 141D.) Lecture, three hours; discussion, two hours (when scheduled). Geographical perspective on part of globe commonly called Third World (global South). How development has shaped livelihood possibilities and processes of development. Historical and future back centuries, and transformative possibilities of Third World agency. World societies seek to transform Third World into their own image through theories and practices of colonialism, development, and globalization. Study of those theories and Third World alternatives to examine how they have shaped livelihood possibilities. Social differences between stagnant live-elihood possibilities and majorities and minorities that prosper massively, as well as geographical differences (culturally, environmentally, and socially) across Third World. Examination of possibilities of Third World agency to self-categorization and elaboration to village activism, asking whether such agency and alternative imaginaries can enable Third World residents to break with First World developmentalism. Letter grading.

153. Transportation Geography. (4) (Formerly numbered M149.) (Same as Urban Planning M150.) Lecture, three hours. Requisite: course 3 or 4. Designed for juniors/seniors. Study of geographical aspects of transportation, with focus on characteristics and functions of various modes and on complexities of intra-urban transport. P/NP or letter grading.

158. Population Geography. (4) (Formerly numbered 142D.) Lecture, three hours; reading period, one hour. Described for juniors/seniors. Study of social and behavioral perspectives influencing people in their patterns of demographic change, migration, and mobility, with special emphasis on spatial relationships and selected case studies. Letter grading.

159. Population in Interacting World. (4) (Formerly numbered 143D.) Lecture, three hours. Provides multi-disciplinary understanding of and appreciation for human population issues, with particular emphasis on differences in different parts of world and at different geographical scales—from local to global. Particular emphasis on understanding and critically reflecting on (1) contemporary population problems at global, national, and local scale, including both dramatic decline and persistence of high levels of fertility in parts of developing world, record low fertility and population aging in highly industrialized countries, increasing levels of international migration, refugee crises, massive rural to urban migrations, and creation of mega-cities in less developed world, (2) policies adopted to address these problems, such as family planning policies and (3) gender dimension of contemporary population problems and policies. P/NP or letter grading.

160. Urban Geography. (4) (Formerly numbered 150D.) Lecture, three hours; reading period, one hour. Designed for juniors/seniors. Analysis of development, functions, spatial patterns, and geographic problems of cities. P/NP or letter grading.

161. Cities and Social Difference. (4) (Formerly numbered 151D.) Lecture, three hours; discussion, one hour. City landscapes embody best and worst of U.S. society: diversity and poverty, opportunity and violence. Study of urban spaces, social differences, inequality, and conflicts over urban space. P/NP or letter grading.

169A. Problems in Geography: Urban and Regional Development Studies. (4) (Formerly numbered 159A.) Seminar, three hours; reading period, one hour. Preparation: completion of three courses in one concentration. Limited to seniors. Seminar course in which students carry out intensive research projects developed from courses within one concentration. P/NP or letter grading.

Regions

171A. North America. (4) (Formerly numbered 180B.) Lecture, three hours; reading period, one hour. Designed for juniors/seniors. Delimitation and analysis of principal geographic regions of U.S. and Canada. P/NP or letter grading.

171B. California. (4) (Formerly numbered 184D.) Lecture, three hours; reading period, one hour. Limited to juniors/seniors. Systematic and regional treatment of geography of California, including physical, cultural, and economic aspects and detailed at scales of various regions. P/NP or letter grading.

171C. Metropolitan Los Angeles. (4) (Formerly numbered 156D.) Lecture, three hours; reading period, one hour. Designed for juniors/seniors. Study of origins, growth processes, internal structure and pattern, interactions, environmental and spatial problems of Los Angeles metropolitan area. P/NP or letter grading.

172A. Spanish South America. (4) (Formerly numbered 155D.) Lecture, three hours; reading period, one hour. Designed for juniors/seniors. Study of geographic factors, physical and cultural, that are basic to understanding historical development of Spanish
172C. Brazil. (Formerly numbered 182B.) Lecture, three hours; reading period, one hour. Designed for juniors/seniors. Study of geographic factors, physical and cultural, that are basic to development of Portuguese South America and contemporary economic and cultural geography of Brazil. P/NP or letter grading.

173A. Cities of Europe. (4) (Formerly numbered 152.) Lecture, three hours; reading period, one hour. Designed for juniors/seniors. Urbanization of Europe, growth of city systems and internal spatial structure, functions, and geographic trends of contemporary Europe. Particular attention to historical development and landscapes of capital cities such as Rome, Paris, and Berlin. P/NP or letter grading.

174A. The Mediterranean World. (4) (Formerly numbered 183.) Lecture, three hours; reading period, one hour. Designed for juniors/seniors. Study of geographic factors, physical and cultural, that are basic to understanding historical development of Mediterranea region, with particular focus on 1500s to present. Introduction to great debates in history and ecology centers on this region and character of two shores of Mediterranean basin. P/NP or letter grading.

175A. Japan in World: Culture, Place, and Global Connections. (4) (Formerly numbered 139.) Lecture, three hours; reading period, one hour. Focus on questions of culture and place in Japan. Exploration of ways that the relationship between Japan and its neighbors has been shaped by historical and contemporary interactions involving people in both Japan and other parts of world. P/NP or letter grading.

175B. Contemporary China. (4) (Formerly numbered 186.) Lecture, three hours; reading period, one hour. Designed for juniors/seniors. Systematic geographic analysis of elements of landscape, resources, population, and socioeconomic characteristics of People’s Republic. Topics that have included China’s major role in East Asian and international scene, with special attention to China-Japan and Sino-American relations and their geographic bases. P/NP or letter grading.

176A. Southeast Asia. (4) (Formerly numbered 185.) Lecture, three hours; reading period, one hour. Limited to juniors/seniors. Regional synthesis with varying emphasis on people of South or Southeast Asia in their physical, biotic, cultural environment and its dynamic transformation. P/NP or letter grading.

Procedures

178. Conservation Geography Field and Professional Practicum (4) Lecture, seminar, two hours; research group meeting, three hours; one-, three-, and four-day field trips. Limited to senior Geography and Environmental Studies majors. Enrollment by application. Field focus on California vegetation and its response to current and future climate change. Students learn to collect field data, and to conduct field vegetation research. Students learn to work as professional research consultants in teams, develop consulting research proposals, consult assessment reports, and present those reports orally and in written format to clients. Field trips to Mojave Desert, Great Basin Desert, pinyon pine woodland, pine-fir forest, alpine treeline, White Mountains, Sierra Nevada, and coastal pine and redwood forests. P/NP or letter grading.


181C. Geographic Information Systems Programming: Concepts and Applications (4) (Formerly numbered 173.) Lecture, two hours; laboratory, two hours. Enforced requisite: course 181A. Introduction to fundamental concepts and architecture of programming objects in widely used geographic information systems (GIS), and programming in GIS environment. Topics include GIS customization and development using variety of programming languages. Lectures followed by laboratory exercises. P/NP or letter grading.

182A. Introduction to Remote Sensing. (4) (Formerly numbered 169.) Lecture, two hours; laboratory, one hour. Enforced requisite: course 7. Introduction to fast-growing field of environmental monitoring from space. Application of GIS and Remote Sensing (GPS, and Earth Observing System satellites to land-use change, oceanography, meteorology, and environmental monitoring. Introduction to digital image-processing and imaging geographic information systems (GIS) software. P/NP or letter grading.

182B. Remote Sensing: Digital Image Processing and Analysis. (4) (Formerly numbered 172.) Lecture, three hours; laboratory, one hour. Enforced requisite: course 182A. Digital processing methods for manipulating and analyzing image data. Topics include statistical description, geometric and radiometric correction, atmospheric correction, classification, and change detection schemes. Reinforcement of procedures presented in laboratory with lecture exercises and student projects. P/NP or letter grading.

182C. Advanced Remote Sensing. (5) (Formerly numbered 174.) Lecture, three hours; laboratory, two hours; four units. Enforced requisite: course 182A. Remote sensing in visible and infrared wavelength regions to understand basic concepts of interaction and interaction with matter, how digital remote sensing images are acquired, and constraints on available data and data analysis. P/NP or letter grading.

184. Environmental Modeling. (4) (Formerly numbered 166.) Lecture, two hours; research presentation, two hours. Presentation of basic concepts related to computer modeling of biogeochemical cycles, geomorphic processes, and other phenomena relevant to changing Earth and its inhabitants. Laboratory exercises include building basic computer models and working with existing models. P/NP or letter grading.

185. Field Methods in Physical Geography. (8) (Formerly numbered 177.) Lecture, three hours; laboratory, three hours; three-week field course. Enforced requisite: course 182A. Examination of field procedures and concepts used in observation, measurement, analysis, and interpretation of physical phenomena in natural and built environment. Topics vary from year to year and may include soils, geomorphology, and field methods in geographic information science. May be repeated for credit with topic change. P/NP or letter grading.

186. Introduction to Spatial Statistics. (4) (Formerly numbered 171.) Same as Statistics 171A. Lecture, three hours; laboratory, one hour. Enforced requisite: one course from Statistics 10, 12, 13. Introduction to methods of data analysis and representation of geographic distributions and associations. P/NP or letter grading.

187. Research and Writing in Human Geography. (4) (Formerly numbered 161.) Seminar, three hours; one-, three-, and four-day field trips. Enforced requisite: two key aspects of what human geographers do. Students improve writing through proposing and conducting self-directed research project. Students should come with idea of topic of interest. Students learn process of doing geography research, including how to ask good research questions, how to search for relevant sources, how to construct argument, how to build literature review, and how to properly cite and incorporate academic sources. Culminating final paper on topics of choice. Weekly class discussion provides opportunity to exchange work with peers, giving useful feedback and opportunity to learn how to offer feedback and how to incorporate feedback into editing their work. Letter grading.

Special Studies

188S.A. Individual Studies for USIE Facilitators. (1) Tutorial, to be arranged. Enforced requisite: Honors College 101E. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor to discuss selected USIE seminar topic, conduct preparatory research, and begin preparation of syllabus. Individual contract with faculty mentor required. May not be repeated. Letter grading.


188S.C. Individual Studies for USIE Facilitators. (2) Tutorial, to be arranged. Enforced requisite: course 188S.B. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor while facilitating USIE course. Individual contract with faculty mentor required. May not be repeated. Letter grading.

189. Advanced Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to undergraduate lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be repeated for credit a maximum of four units. Individual honors contract required. Honors content noted on transcript. P/NP or letter grading.

189HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to upper-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be repeated for credit a maximum of four units. Individual honors contract required. Honors content noted on transcript. Letter grading.

191. Variable Topics Research Seminars: Geography. (4) Seminar, three hours. Three hours available in selected topics in geography. Some sections may require prior coursework. Consult Schedule of Classes for topics and instructors. May be repeated for credit and may be applied as elective units toward departmental majors and minors. P/NP or letter grading.

194. Research Group Seminars: Geography. (2) Seminar, two hours. Research group meeting, two hours. Designed for undergraduate students who are part of research group. Discussion of research methods and current literature in field of or research of faculty members or students. May meet concurrently with graduate research seminar. May be repeated for credit a maximum of four units. Individual honors contract required. P/NP or letter grading.

C194A. Research Group Seminars: Issues in Biophysical Geography. (1) Seminar, one hour. Designed for undergraduate students who are part of research group. Discussion of current research in biophysical geography. Topics vary from year to year. May be repeated for credit. Concurrently scheduled with course C299A. P/NP or letter grading.

195. Community or Corporate Internships in Geogra-phy. (4) Tutorial, four hours. Limited to juniors/seniors. Internship of eight to 10 hours per week in supervised setting in community agency or business. Students meet on regular basis with instructor and provide periodic reports and written evaluation. May be repeated for credit. Individual contract with supervising faculty member required. P/NP grading.
Graduate Courses

Core

200A. History and Structure of Modern Geography. (4) (Formerly numbered 297A.) Lecture, three hours; reading period, one hour. History and structure of modern geographical systems. Limited to juniors with B average in major or seniors. Letter grading.

Methods

201. Research Design in Geography. (4) (Formerly numbered 298D.) Lecture, four hours. Introduction to logic of geographic inquiry. Topics include questions surrounding philosophy of science, research design issues, and range of methodologies available to and implemented by geographers to enable students to evaluate geographic literature critically. S/U or letter grading.

202. Qualitative Methods and Methodology. (4) (Formerly numbered 299C.) Seminar, three hours; laboratory, two hours. Examination of definition and use of qualitative methodology and methods in social-cultural geographic research. Exploration of relationship between methodology and epistemology; review of range of research methods and techniques, including interviewing and focus groups, observation, action research, ethnography, and interpretation of material culture, and consideration of ethical and practical issues of conducting qualitative research. S/U or letter grading.

204. Statistical Methods for Geographic Research. (4) (Formerly numbered 299A.) Lecture, three hours; laboratory, two hours. Requisite: course M171. Use of linear models, discriminant functions, and factor analysis to analyze problems in geography. S/U or letter grading.

M205. Spatial Statistics. (4) (Formerly numbered M272.) (Same as Statistics M222 and Urban Planning M215.) Lecture, three hours. Designed for graduate students. Survey of modern methods used in analysis of spatial data. Implementation of various techniques using real data sets from diverse fields, including surveying, geography, and environmental sciences. S/U or letter grading.

M206. Introduction to Biophysical Modeling of Land Surface Processes and Land/Atmosphere Interactions. (4) (Same as Atmospheric and Oceanic Sciences M206.) Lecture, two hours; laboratory, one hour; reading period, one hour. Designed for graduate students. Presentation of introductory knowledge for graduate students to understand nature, principles, and scope of biophysical modeling of land surface processes, including soil properties, vegetation, and atmospheric processes. S/U or letter grading.

Geospatial Information Systems

208. Geospatial Data Visualization and Analysis. (4) (Formerly numbered 299B.) Lecture, three hours; laboratory, two hours. Requisite: course 168. Statistical Analysis 12. Development of broad base of knowledge and set of skills that foster conduct of high-quality geo-spatial data analysis. S/U or letter grading.

211. Remote Sensing of Environment. (4) (Formerly numbered 299E.) Laboratory, three hours; independent study, two hours. Requisite: course 167. Study of aerial photographs and other remote sensing images as tools for geographical research. Particular attention to analysis of landscapes and interpretation of interrelationships of individual features in their physical and cultural context. S/U or letter grading.

Remote Sensing

212. Physical, Mathematical, and Computational Basis of Remote Sensing. (4) (Formerly numbered 299F.) Lecture, three hours; laboratory, two hours. Requisite: courses 169, 172. Extensive review and analysis of fundamental physics, mathematics, and computer science that underlie modern remote sensing and application to this knowledge to modern geo-empirical data and case studies by research. May be repeated for credit with topic change. S/U or letter grading.

214. Advanced Projects in Geographical Information Systems (GIS)/Remote Sensing. (4) (Formerly numbered 268.) Lecture, one hour; laboratory, three hours. Requisite: course 169. Laboratory research project in the GIS field course environment. All aspects of modeling from project original, including data acquisition, processing, and analysis; interpretation of results and presentation in publication-style format. Letter grading.

215. Advanced Field and Laboratory Methods in Biophysical Geography. (4) (Formerly numbered 260.) Laboratory, five hours; fieldwork, five hours. Examination of advanced field and laboratory procedures used in contemporary biophysical geographic research. May be repeated for credit with instructor change. S/U or letter grading.

216. Advanced Field Analysis: Biogeography. (8) (Formerly numbered 262.) Fieldwork, 10 hours. Examination of advanced theoretical and laboratory procedures used in contemporary biophysical geographic research. All aspects of model are unique project, including data acquisition, processing, and analysis; interpretation of results and presentation in publication-style format. Letter grading.

Human Geography

224. International Migration. (4) (Formerly numbered M243.) (Same as Sociology M236B.) Lecture, three hours. Further exploration of key current theoretical debates in study of international migration, with emphasis on exploring both theoretical debates of the past and empirical case studies on which those debates hinge, to encourage students to undertake research in field. S/U or letter grading.

229A. Development Theory. (4) (Same as Urban Planning M234A.) Lecture, three hours. Review of basic literature of development theory through analysis of impact of mercantilism, colonialism, capitalism, and socialism on various local and social economic structures in Third World. Presentation, through evaluation of theoretical writings and case studies, of complexity and diversity of developing countries. Emphasis on linkages between policy and rural and urban impacts. Gives students important background for courses M228B, M229C, and many other planning courses addressing Third World issues. Letter grading.

M229B. Ecological Issues in Planning. (4) (Same as Urban Planning M234B.) Lecture, three hours. Recommended preparation: Urban Planning M265, Science and politics of modern environmentalism and planning in light of transformations inherent in global change, including how to address these issues in ways that go beyond green consumerism and bifurcation of wild, ecological, and human environments. American environmentalism has become dominant model for many conservation practices. Formulated by McKee model of idea of untrammeled nature with people-less set-asides for spiritual and scientific contemplation of nature; this approach used in environmental policy and as key idea in conservation and fragmentation biology. At opposite end is environmental planning devoted to infrastructure in hyper-human habitats (cities). Exploration of these competing models and many reasons to be skeptical of both in 21st century. Letter grading.

M229C. Resource-Based Development. (4) (Same as Urban Planning M234C.) Lecture, three hours. Recommended preparation: course M229A. Some major issues associated with development of specific natural resources. Topics include nature of particular resource (or region associated with it), its previous management, involvement of state, corporations, and local government; environment and social impact of its development. Letter grading.

M230A. Theories of Regional Economic Development. (4) (Formerly numbered M236A.) (Same as Public Policy M240 and Urban Planning M236A.) Lecture, three hours; discussions that introduce to theories of location of economic activity, trade, and other forms of contact between regions, process of regional growth and decline, reasons for different levels of economic development, relations between more and less developed regions. Letter grading.

M230B. Globalization and Regional Development. (4) (Formerly numbered M236B.) (Same as Urban Planning M236B.) Lecture, three hours. Requisite: course M230A. Application of theories of regional economic development, location, and trade learned in course M230A to contemporary process known as globalization. Examination of nature and effects of globalization on development, employment, and social structure, along with implications for policy. Letter grading.

235. Seminar: Social Geography. (4) Seminar, three hours; reading period, one hour. Process of doing social/cultural geography entails conceptualizing, adapting, and reformulating social and critical theories of space, subject, and power. Examination of this process by considering theoretical themes that shape concepts of social space and social research. Theoretical discussions of recent research in social/cultural geography, particularly around topics of gender, race sexuality, subjects and spatiality, resilience and agenda, and social difference and identity. S/U or letter grading.

236. Seminar: Cultural Geography. (4) (Formerly numbered 233.) Seminar, three hours; reading period, two hours. Discussions on particular topics in cultural geography. Content may vary from year to year. May be repeated for credit. S/U or letter grading.

237. Seminar: Historical Geography. (4) Seminar, three hours; reading period, two hours. Theory and practice of historical geography in North America and Europe. May be repeated for credit. S/U or letter grading.

238. Seminar: Urban Geography. (4) (Formerly numbered 251.) Seminar, three hours; reading period, two hours. Requisite: course 250. Related research projects growing out of course 250. May be repeated for credit. S/U or letter grading.

240. Seminar: Geographic Thought. (4) (Formerly numbered 265.) Seminar, two hours. Designed for graduate students. Discussions and study of topics significant to growth of modern geography in urban, environmental, and social theory. Letter grading.

Geography / 451
Human Geography Advanced
245. Advanced Political Geography: Geopolitics. (4) (Formerly numbered 240.) Lecture, two hours; discussion, one hour; one hour of discharge. Preparation: one hour. Intensive study of theories and principles of geopolitics. Selected regions used as examples of differing techniques of study in geopolitics. S/U or letter grading.

247. Advanced Topics in Cultural Geography. (4) (Formerly numbered 232.) Seminar, two hours; discussion, one hour; reading period, one hour. Requisite: course 133. Lectures and discussions around specific aspects of cultural geography and their impacts on different geographic environments. S/U or letter grading.

248. Advanced Topics in Economic Geography. (4) (Formerly numbered 231.) Seminar, three hours; reading period, three hours. Designed for graduate students. Issues in economic theories and principles S/U or letter grading.


250. Advanced Topics in Urban Geography. (4) Seminar, two hours; discussion, one hour; reading period, one hour. General study of hierarchy of urban places, including diffusion within urban hierarchy and theories for account for location and size distribution of cities. S/U or letter grading.

Physical Geography
255. Physical Basis of Geography. (4) (Formerly numbered 297B.) Lecture, three hours; reading period, one hour. Critical evaluation of formative influences, paradigm shifts, and present challenges of physical geography, illustrated from historical developments and changing research frontiers in geomorphology, climatology, oceanography, hydrology, and soils. S/U or letter grading.

256. Regional Climate and Terrestrial Surface Processes. (4) (Formerly numbered 297.) Seminar, three hours. Designed for graduate students. Physical concepts and basic principles of land-surface/ atmosphere interactions. Exploration of topics in terms of regional and global perspective and implications. Human activities cause changes in land cover, which in turn affect regional climate. Some regions, in particular, appear to be hot spots. Regions to be studied in detail. S/U or letter grading.

257. Land Degradation. (4) (Formerly numbered 227.) Seminar, three hours. Discussion on impact of human activities and institutions on terrestrial ecosystems and goods and services they provide. Topics vary from year to year. May be repeated for credit with topic change. S/U or letter grading.

258. Human Security and Environmental Change. (4) (Formerly numbered 228.) Seminar, three hours. Discussion of impact of environmental change on food, water, and physical security of human populations and societies’ adaptations to environmental change. Topics vary from year to year. S/U or letter grading.

260. Evolution, Ecology, Environmentalism, and Roots of Modern American Geography. (4) (Formerly numbered 297C.) Seminar, three hours; reading period, one hour. Discussion of how contemporary development of modern concepts of evolution, ecology, and environmentalism influenced, and were influenced by, development of modern geography as academic discipline. S/U or letter grading.

M265. Environmentalisms: Climate Dimensions and Politics, Past, Present, Future. (4) (Same as Urban Planning M265.) Lecture, three hours; discussion, one hour. Review of environmental theories and their practices in dynamic U.S. and international contexts. Issues of climate change, scenario planning, and matrix methodologies in both urban and rural settings. Exploration of problems of increasing internationalization (or international implications) of environmental practices as part of both green and black economies. What does integrated environmental planning look like in this century? Letter grading.

270A-M270B-M270C. Seminars: Climate Dynamics. (2 to 4 each) (Same as Atmospheric and Oceanic Sciences M270A-M270B-M270C.) Seminar, two hours. Analytical, geochemical, and paleoclimatological evidence reflecting climate change throughout geological past. Rheology and dynamics of climatic systems: atmosphere and oceans, ice sheets and marine ice, lithosphere and mantle. Climate of other planets, modeling, simulation, and prediction of climate on monthly, seasonal, and interannual time scale. May be repeated for credit. S/U or letter grading.

271. Seminar: Climatology. (4) (Formerly numbered 205.) Seminar, three hours; reading period, one hour. Requisite: course 280. Selected topics. May be repeated for credit. S/U or letter grading.

272. Seminar: Biogeography. (4) (Formerly numbered 213.) Seminar, three hours; reading period, two hours. Requisite: course 281. Related research projects growing out of course 281. May be repeated for credit. S/U or letter grading.

274. Seminar: Humid Tropics. (4) (Formerly numbered 223.) Seminar, three hours; reading period, two hours. Designed for graduate students. Selected topics of physiography and cultural content of humid tropics, with emphasis on problems related to human settlement and livelihood. May be repeated for credit. S/U or letter grading.

277. Coastal Geography. (4) Seminar, three hours. Discussion of various coastal topics from biophysical, ecological, and human perspectives. Content may vary from year to year. May be repeated for credit. S/U or letter grading.

Physical Geography Advanced
280. Advanced Climatology. (4) (Formerly numbered 204.) Lecture, three hours; laboratory, one hour. Preparation: first year of calculus and acquaintance with Fortran IV. Requisite: course 104. Introduction to tools and concepts of environmental physics of relevance to natural and man-made landscapes. Such basic intellectual, mathematical, and computer programming tools are of special concern to physical geographers, ecologists, and architects. S/U or letter grading.

281. Advanced Topics in Biogeography. (4) (Formerly numbered 208.) Lecture, two hours; discussion, one hour; reading period, one hour. Requisites: courses 108, and 110 or 116. Intensive review and analysis of physical and cultural factors influencing plant distributions. May be repeated for credit. S/U or letter grading.

283. Advanced Topics in Geomorphology. (4) (Formerly numbered 200.) Lecture, two hours; discussion, one hour; reading period, eight hours. Preparation: two courses from 101, 105, M107. Requisite: course 100. Analysis of geomorphic theories since scientific revolution, with emphasis on catastrophism, uniformitarianism, glacial theories, isotasy and eustasy, evolution and cyclicity, thermodynamics and mechanics, quantification, and current paradigms. View of each theme in its contemporary milieu. S/U or letter grading.

286. Advanced Topics in Environmental Change. (4) (Formerly numbered 215.) Lecture, three hours; reading period, two hours; fieldwork, three hours. Preparation: one course from 271, 280, 283, or one appropriate graduate course in atmospheric and oceanic sciences or Earth, planetary, and space sciences. Analysis of changing physical environment of Quaternary period. May be repeated for credit. S/U or letter grading.

Regional Geography
290. South America. (4) (Formerly numbered 282.) Seminar, three hours; reading period, two hours. Introduction to main issues in geography of South America, with focus on the methodological and spatial perspectives on national period; themes and periods can be adapted to individual interests. S/U or letter grading.
The Department of Germanic Languages offers an array of courses in languages, literatures, and cultures. The broad range of studies offers training in specialized fields such as film, linguistics, and critical theory. Courses prepare students for a variety of careers, including education, law, business, international relations, and publishing.

Undergraduate majors earn a Bachelor of Arts degree by completing one of three plans. An undergraduate minor is also available. Language, literature, and culture studies are available in Afrikaans and Dutch, in addition to German. The graduate program offers Master of Arts and PhD degrees. Refer to the Scandinavian Section for information about the degrees in Scandinavian studies. The program also provides opportunity for study, work study, and internships.

**Undergraduate Study**

The German major is a designated capstone major. During their senior year, students complete a capstone seminar under the guidance of a faculty member. In the seminar they reflect both individually and collaboratively on prior coursework for the major and draw out common themes. Students identify key ideas that interest them while demonstrating analytical thinking, synthesized knowledge, collaborative spirit, and a keen awareness of the German language and German-speaking cultures.

No credit is allowed for completing a less advanced course after successful completion of a more advanced course in Afrikaans, Dutch, German, and Yiddish grammar and/or composition.

**German Major**

**Learning Outcomes**

The German major has the following learning outcomes:

- Demonstrated skills at analyzing and synthesizing knowledge gained
- Identification, drawn from coursework, of a key idea or theme of interest
- Ability to effectively present learning about selected theme through final paper or project
- Demonstrated capacity to work collectively to effectively analyze and synthesize knowledge

**Preparation for the Major**

For admission, students should consult with the language program director prior to admission to UCLA: two years of German language and German-speaking cultures.

**Transfer Students**

Transfer applicants to the German major with 90 or more units must complete the following introductory courses prior to admission to UCLA: two years of German. Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

**The Major**

Three plans are offered by the department.

**Plan I: German Studies**

Required: Six upper-division German courses, three upper-division elective courses in fields relevant to Germanic languages to be selected in consultation with the director of undergraduate studies, and German 191C. Each course must be taken for a letter grade.

**Plan II: Germanic Language and Literature**

Required: German 140, 141, or C142; 152; 153 or 158; 191C; and six upper-division German courses, two of which may be from outside the department with approval of the director of undergraduate studies. Each course must be taken for a letter grade.

**Plan III: Germanic Linguistics**

Required: German 140, 141, C142, 152, 153, 191C, one upper-division elective course in the department, and three upper-division elective courses in fields relevant to Germanic languages to be selected in consultation with the director of undergraduate studies.

**Honors Program**

To qualify for graduation with departmental honors, students must earn a cumulative grade-point average of 3.6 or better in upper-division German courses and a 3.3 overall GPA, and complete German 199 with a grade of A. Contact the departmental honors adviser for procedures, special arrangements, possible exceptions, and other information.

**German Minor**

To enter the German minor, students must have an overall grade-point average of 2.0 or better.

**Required Lower-Division Courses (8 units):**

- German 5 and 6 or equivalent.

**Required Upper-Division Courses (at least 20 units):**

- Any five upper-division courses in the department.

A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor. Each minor course must be taken for a letter grade, and students must have an overall grade-point average of 2.0 or better in the minor. Successful completion of the minor is indicated on the transcript and diploma.

**Graduate Study**

Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Division website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

**Graduate Degrees**

The Department of Germanic Languages offers Master of Arts (MA), Candidate in Philosophy (CPhil), and Doctor of Philosophy (PhD) degrees in Germanic Languages and a Master of Arts (MA) degree in Scandinavian (see Scandinavian Section).

**Afrikaans**

**Lower-Division Courses**

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

40. From Oppressed to Oppressor and Beyond: Literature in Afrikaans from Prepartheid to Postpartheid Era in English Translation. (5) Lecture, four hours; discussion, one hour. Enforced requisite: English Composition 3 or 3H. Development of all literature in Afrikaans, with special attention to authors and poets who protested apartheid—Brink, Breytenbach, Van Heerden, Jonker, Joubert, Krige, Krog, Le Roux, Rabe, Small, and Willemse. Additional readings by Coetzee, De Lange, Krog, and others on censorship, imprisonment, South African history, and postcolonial literary theory. P/NP or letter grading.
89. Honors Seminars. (1) Seminar: three hours. Limited to 20 students. Designed as adjunct to lower-division lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

89HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to upper-division lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

90. Directed Research or Senior Project in Dutch. (4) Tutorial, three hours. Limited to juniors/seniors. Supervised individual research or investigation under guidance of faculty mentor. May be repeated for credit. Individual contract required. P/NP or letter grading.

99. Student Research Program. (1 to 2) Tutorial (supervised research or other scholarly work), three hours per week per unit. Entry-level research for lower-division students under guidance of faculty mentor. Students must be in good academic standing and enrolled in minimum of 12 units (excluding this course). Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP grading.

Upper-Division Courses

105A. Elementary Afrikaans. (4) Lecture, four hours; language laboratory. Introduction to sister language of modern Dutch and one national language of South Africa. Grammar, practice in listening, speaking, reading, and writing. P/NP or letter grading.

105B. Intermediate Afrikaans. (4) Lecture, four hours; language laboratory. Requisite: course 105A. Grammatical exercises; reading and linguistic analysis of texts from both literary and nonliterary sources. P/NP or letter grading.

135. Introduction to Afrikaans Literature. (4) Discussion, three hours. Requisite: course 105B. Analysis of selected works from founding of Genootskap van Regte Afrikaners in 1875 to present time, including novels by recent writers such as Lourens and Brink, as well as works of authors such as Eybers, Oppenhuysen, W.E.G. Louw, Van Wyk Louw, and Breytenbach. P/NP or letter grading.

189. Advanced Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to undergraduate literature lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

189HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to lower-division lecture course. Individual study with lecture course instructor to explore topics of greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. Letter grading.

199. Student Research Program. (1 to 2) Tutorial (supervised research or other scholarly work), three hours per week per unit. Entry-level research for lower-division students under guidance of faculty mentor. Students must be in good academic standing and enrolled in minimum of 12 units (excluding this course). Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP grading.

Higher-Division Courses

103A–103B. Elementary Dutch. (4–4) Lecture, four hours; language laboratory. Course 103A is requisite to 103B. Introduction to standard language of Netherlands and one of three standard languages of Belgium. Practice in grammar, listening, speaking, reading, and writing. P/NP or letter grading.


104A–104B. Accelerated Dutch. (6–6) Lecture, four hours; discussion, one hour; laboratory, two hours. Covers material in courses 103A, 103B, 103C in two terms rather than three. Letter grading.

113. Modern Dutch and Flemish Literature in Translation. (4) Lecture, three hours. Readings and analysis of works by selected authors of Netherlands and northern (Flemish) Belgium such as Boon, Claus, Couperus, Hermans, Mulisch, and Reve and selected poets such as Coenbert, Gezelle, Gorter, Kloos, Lucebert, Nijhoff, Van Ostaijen, and Vroman. Letter grading.

120. Introduction to Dutch Studies. (4) Lecture, three hours. Dutch: Grammar, Reading and discussion of selections from contemporary Dutch literature, contemporary Dutch literary criticism, and modern Dutch linguistics. Emphasis on developing skills of acquisitional proficiency and appreciation of scope of 20th-century Netherlands, P/NP or letter grading.

131. Introduction to Modern Dutch Literature. (4) Discussion, three hours. Requisite: course 103B or 120. Selected works of literature of Netherlands and northern (Flemish) Belgium from mid-1850s to present, including novels by such writers as Multatuli, Couperus, Hermans, Mulisch, and Reve and poetry by such groups as symbolist Beweging van Tachtig and post-War Beweging van Vijftig. P/NP or letter grading.

189. Advanced Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to upper-division lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

189HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to upper-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for credit. Individual contract required. P/NP or letter grading.

Graduate Courses

596. Directed Individual Study or Research in Afrikaans. (4) Tutorial, to be arranged with faculty member who directs study or research (course section to be identified by two-letter code using initials of sponsoring instructor—see department for ID number). May be repeated once. S/U grading.

597. Preparation for PhD Qualifying Examinations. (4) Tutorial, to be arranged with instructor (see department for ID number). S/U grading.

Dutch

10. Contemporary Dutch Society and Culture: Beyond Rembrandt and Golden Shoes. (6) Lecture, three hours. Lectures and readings in English. Country known as Holland, or more correctly, The Netherlands (in Dutch: Nederland) has played crucial role in both American history and American current events. It was first country to set up official diplomatic relations with U.S. (in 1782) and is major investor in U.S. and staunch ally of its foreign policy. Piercing of touristica aura surrounding The Netherlands by actively comparing and contrasting contemporary Dutch culture and society with contemporary American culture and society. How life would be different growing up in The Netherlands. Letter grading.

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

89. Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to lower-division lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. Letter grading.

199. Directed Research or Senior Project in Dutch. (4) Tutorial, three hours. Limited to juniors/seniors. Supervised individual research or investigation under guidance of faculty mentor. May be repeated once. S/U grading.

Graduate Courses

596. Directed Individual Study or Research in Dutch. (4) Tutorial, to be arranged with faculty member who directs study or research (course section to be identified by two-letter code using initials of sponsoring instructor—see department for ID number). May be repeated once. S/U grading.

597. Preparation for PhD Qualifying Examinations. (4) Tutorial, to be arranged with instructor (see department for ID number). S/U grading.

German

Lower-Division Courses

1. Elementary German. (4) Lecture, five hours; laboratory, one hour. P/NP or letter grading.

2. Elementary German. (4) Lecture, five hours; laboratory, one hour. Enforced requisite: course 1. P/NP or letter grading.

3. Elementary German. (4) Lecture, five hours; laboratory, one hour. Enforced requisite: course 2. P/NP or letter grading.


5. Intermediate German. (4) Lecture, four hours; laboratory, one hour. Enforced requisite: course 4. P/NP or letter grading.

6. Intermediate German. (4) Lecture, four hours; laboratory, one hour. Enforced requisite: course 5. P/NP or letter grading.

8. Elementary German: Intensive. (12) Lecture, 15 hours; laboratory, five hours. Intensive basic course in German equivalent to courses 1, 2, and 3. P/NP or letter grading.

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

10. Contemporary Dutch Society and Culture: Beyond Rembrandt and Golden Shoes. (6) Lecture, three hours. Lectures and readings in English. Country known as Holland, or more correctly, The Netherlands (in Dutch: Nederland) has played crucial role in both American history and American current events. It was first country to set up official diplomatic relations with U.S. (in 1782) and is major investor in U.S. and staunch ally of its foreign policy. Piercing of touristica aura surrounding The Netherlands by actively comparing and contrasting contemporary Dutch culture and society with contemporary American culture and society. How life would be different growing up in The Netherlands. Letter grading.

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

189. Advanced Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to lower-division lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

189HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to lower-division lecture course. Individual study with lecture course instructor to explore topics of greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. Letter grading.

199. Directed Research or Senior Project in Dutch. (4) Tutorial, three hours. Limited to juniors/seniors. Supervised individual research or investigation under guidance of faculty mentor. May be repeated once. S/U grading.

Graduate Courses

596. Directed Individual Study or Research in Dutch. (4) Tutorial, to be arranged with faculty member who directs study or research (course section to be identified by two-letter code using initials of sponsoring instructor—see department for ID number). May be repeated once. S/U grading.

597. Preparation for PhD Qualifying Examinations. (4) Tutorial, to be arranged with faculty member who directs study (see department for ID number). S/U grading.
Rilke, Kafka, Brecht, Thomas Mann, Hesse, Grass, Böl, and Christa Wolf. May not be applied toward completion of major in German. P/NP or letter grading.

56. Figures Who Changed World: Cosmopolitanisms Within a Global Context. (5) Lecture; three hours; discussion, one hour. Introduction to strains of German philosophical thought that focus on cosmopolitanism. Exploration of different historical and philosophical engagements with cosmopolitan projects. P/NP or letter grading.

59. History of Film through Literature. (5) Lecture/ screenplays, five hours; discussion, one hour. History of Holocaust and its present memory through examinations of challenges and problems encountered in trying to imagine its horror through media of literature and film. P/NP or letter grading.

61A. Modern Metropolis: Berlin. (5) Lecture, three hours; discussion, one hour. Cultural, political, architectural, and urban history of one of most vibrant and significant cities in world. Exploration of city over 3000 years, using innovative mapping tools to understand how Berlin evolved from fortified mercantile town into global city. P/NP or letter grading.

88. Lower-Division Seminar. (4) Seminar, three hours. Introduces students to topics of current interest and offered whenever staff member is available. P/NP or letter grading.

89. Honors Seminars. (1) Seminar, three hours. Limited to topics of greatest interest to community and led by lead seminar instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

89HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed to supplement lower-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

99. Student Research Program. (1 to 2) Tutorial (supervised research or other scholarly work), three hours per week per unit. Entry-level research for lower-division students under guidance of faculty mentor. Students must be in good academic standing and enrolled in minimum of 12 units (excluding this course). Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP grading.

Upper-Division Courses

102. War, Politics, Art. (5) Lecture, three hours; discussion, one hour. Taught in English. Analysis of interrelationship between politics, social conditions, and arts with respect to war. World Wars I and II and German history to be used as model for principal questions of society and philosophical thinking. P/NP or letter grading.

103. German Film in Cultural Context: Early German Film. (4) Lecture, two hours; discussion, one hour. Taught in English. Survey of German film between 1919 and 1945. Analysis of technological and stylistic development of film from silent Expressionist cinema to Nazi propaganda and entertainment films. Film discussions enhanced by interactive media. Letter grading.

104. German Film in Cultural Context: 1945 to Present. (4) Lecture, two hours; discussion, one hour. Taught in English. Survey of German film since 1945 in its thematic and stylistic diversity. How did German filmmakers grapple with aftermath of World War II and Holocaust, economic recovery, Cold War and division of Germany, reunification, and growth of minority communities? Film discussions enhanced by interactive media. Letter grading.

109. Jewish Question and German Thought. (4) Lecture, three hours. Taught in English. Analysis of works that represent process of Jewish assimilation, disenfranchisement, and extermination, including authors such as Mendelssohn, Heine, Kafka, Paul Celan, Walter Benjamin, and Elie Wiesel. Letter grading.

110. Special Topics in Modern Literature and Culture. (4) Lecture, three hours. Taught in English. Content varies with instructor and may include works by authors such as Thomas Mann, Rilke, Kafka, Brecht, Christa Wolf, and others. May be repeated for credit. Letter grading.

112. Feminist Issues in German Literature and Culture. (4) Lecture, three hours. Taught in English. Analysis of major issues in German feminism today (e.g., status, creative work, and reception of women writers in various periods such as Romanticism, Fascism, and/or divided/united Germany). Letter grading.

113. German Folklore. (4) Lecture, three hours. Taught in English. Survey of various folklore genres in cultural context, including legends, proverbs, and cultural enactments such as carnival. Letter grading.

114. Fairy Tales and Fantastic. (5) Lecture, three hours; discussion, one hour. Taught in English. History and reception of fairy tales in Europe, with particular attention to ideology and influence of Grimm’s tales. Interpretation of selected tales and their transformations and appropriation in literature, film, advertising, and pedagogy. P/NP or letter grading.

115. 19th-Century German Philosophy. (4) Lecture, three hours; discussion, one hour. Taught in English. German philosophy, which may generally be characterized as philosophy that takes activity rather than passive subsistence to be fundamental nature of all things, is one of Germany’s greatest gifts to humanity. Exploration of first half of two-century history of German philosophy—period from Kant to Nietzsche, including Hegel, Kierkegaard, and Marx. Letter grading.

116. 20th-Century German Philosophy. (4) Lecture, three hours; discussion, one hour. Taught in English. German philosophy, which may generally be characterized as philosophy that takes activity rather than passive subsistence to be fundamental nature of all things, is one of Germany’s greatest gifts to humanity. Exploration of second half of two-century history of German philosophy—period from Nietzsche through Habermas, including Heidegger, Gadamer, Jaspers, and Frankfurt School. Letter grading.

117. German Exile Culture in Los Angeles. (4) Lecture, three hours. Taught in English. Cultural and historical exploration of exile as site of creative activity for German writers and other artists during and after World War II. General questions of cultural migration and cultural transfer to be thematized. P/NP or letter grading.

118SL. Between Memory and History: Interviewing Holocaust Survivors. (4) Seminar, two hours; fieldwork, two hours. Strongly recommended requisites: prior European and Holocaust history courses. Examination of historical value of eyewitness testimony of Holocaust through unique service opportunities that bring students together with survivors. Question of testimony approached from number of perspectives, including legal, historical, and ethical, to examine its social and political value and memory. Examination of survivor testimony through classic memoirs in field, such as Primo Levi’s The Drowned and the Saved and Rudolph Kuger’s Still Alive. Through collaboration with Jewish Historical Museum of 39 Club, and Los Angeles Museum of Holocaust, students meet and work with Holocaust survivors and undertake collaborative research projects and oral histories. Students also research and interview notable persons and experience tours through Museum of Holocaust. Letter grading.

140. Language and Linguistics. (4) Lecture, three hours. Enforced requisite or corequisite: course 6. Taught in English with German proficiency required. Exploration of one topic in field of Germanic linguistics, such as phonetics and phonology, morphology and syntax, semantics and pragmatics, social and spatial variation (i.e., sociolinguistics and dialectology of German). May be repeated for credit. Letter grading.

C142. Linguistic Theory and Grammatical Description. (4) Lecture, three hours. Enforced requisite: course 6 or Linguistics. Taught in English with German proficiency required. Problems in structure of Dutch and German, considered from theoretical frameworks such as sign-oriented linguistics, functional linguistics, and cognitive linguistics. Discussion of formal linguistic approaches. Concurrently scheduled with course C238. Letter grading.

152. Conversation and Composition on Contemporary German Culture and Society I. (4) Lecture, three hours. Requisite: course 6. Taught in German. Structured around themes as they emerge in contemporary German texts ranging from news magazine articles to literature, with emphasis on speaking and writing proficiency. Presentation software featured. P/NP or letter grading.

153. Conversation and Composition on Contemporary German Culture and Society II. (4) Lecture, three hours. Requisite: course 6. Taught in German. Structured around themes as they emerge in contemporary German texts ranging from news magazine articles to literature, with emphasis on speaking and writing proficiency. Presentation software featured. P/NP or letter grading.


155. Advanced German Language through Cultural History and Current Affairs. (4) Lecture, three hours. Requisites: courses 152, 153. Taught in German. Advanced German language course that juxtaposes cultural, social, administrative, practices, and correspondence, with attention to cultural nuances. Ongoing developments in European Union analyzed via newspaper articles and Internet. P/NP or letter grading.

157. Contemporary German Cinema: Advanced Conversation and Composition. (4) Lecture, three hours. Taught in German. Development of advanced speaking skills and thorough grounding in essay writing in German by considering issues of style, structure, grammar, and vocabulary. Introduction to contemporary German Cinema, with emphasis on German film criticism. Analysis of movies to better understand various cinematic techniques. P/NP or letter grading.

158. Introduction to Study of Literature. (4) Lecture, three hours. Taught in German. Introduction to methods of literary analysis. Importance of literary analysis to help students develop and improve skills in close and critical reading of literary texts, develop basic research techniques, acquire familiarity with basic elements of literary and cultural studies, and find pleasure in pursuit of literary and cultural study. Letter grading.

159. German Cultural Studies. (4) Lecture, three hours. Requisite: course 152 or 153. Taught in German; some theoretical readings in English. Exploration of German culture in different historical con-
texts. Examination of various cultural spaces, prac-
tices, and standpoints as staged in literary and nonlit-
ery texts, with emphasis on constructions of sex and
gender, memory and national identity, and ethnicity
and race. Analysis of ways of seeing, thinking, and
talking about these in the manifestations of several
cultural debates that dominated public discussions in
Germany (and Europe) for several weeks, months,
or even years (e.g., debates about admission of women
to universities at end of 19th century, recent founding/
restructuring/ preserving sites of memory in postwar Germany,
and headsark and integration in contemporary Germany).
Letter grading.

170. Goethe’s (Lecture, three hours. Requisite: course
152 or 153. Taught in German. Reading and
discussion of representative works (except Faust) from
Goethe’s early period (Die Leiden des jungen Werther)
through maturity and old age (West-östlicher Divan).
Students work with digital humanities methods to im-
prove German language competency and evaluate
Goethe’s global influence on Western intellectual his-
tory. Letter grading.

173. Advanced Study of Modern Literature. (4) Lec-
ture, three hours. Enforced requisite: course 152 or 153.
Taught in German. Naturalism, Expressionism,
and other early 20th-century literary movements and
works. Letter grading.

174. Advanced Study of Contemporary Literature
and Culture. (4) Lecture, three hours. Enforced requi-
site: course 152 or 153. Taught in German. Literature
after 1945 in German-speaking countries, including is-
sues such as national borders, ethnic identity, gender
relations, and commercialization of culture. Letter
ggrading.

175. Intercultural Germany: Literature, Politics, Mi-
gregation, and Culture. (4) Lecture, three hours. Taught
in German. Most read in German; some theoret-
ical readings in English. Exploration of issues sur-
rounding immigration and intercultural identity in Ger-
many since 1980, with focus on period after 1990. Ex-
amination of various spaces, practices, standpoints as
staged in literary and nonliterary texts, with emphasis on
constructions of ethnicity, nation, race, class, and gender.
Analysis of several political and cultural debates that dominated media and public
discussions in Germany and Europe for several weeks.
Discussion of several literary texts by Turkish German
and other minority/intercultural writers. Exam-
ination of hip-hop minority music and culture as voices in
political debates. Exploration of contempo-
rary controversies around Islam in Germany. Reading of
depictions of Islam and exploring relations
between immigration, globalization, culture, and identity. P/NP or letter
ggrading.

187. Undergraduate Seminar. (4) Seminar, three hours.
Required of all German majors who are candi-
dates for upper-division instructional courses. Content
varies by instructor and may include ad-
vanced work in folklore, film, and German studies.
Letter grading.

188SA. Individual Studies for USIE Facilitators. (1)
Tutorial, to be arranged. Enforced corequisite: Honors
Collegium 101E. Limited to junior/senior USIE facilita-
tors. Individual study in regularly scheduled meetings with
faculty mentor to discuss selected USIE seminar topic, conduct preparatory research, and begin par-
ticipation of syllabus. Individual contract with faculty
mentor required. May not be repeated. Letter grading.

188SB. Individual Studies for USIE Facilitators. (1)
Tutorial, to be arranged. Enforced corequisite: course
188SA. Enforced corequisite: Honors Collegium
101E. Limited to junior/senior USIE facilitators. Individual
study in regularly scheduled meetings with faculty mentor to finalize course syllabus. Individual contract
with faculty mentor required. May not be repeated. Letter grading.

188SC. Individual Studies for USIE Facilitators. (2)
Tutorial, to be arranged. Enforced requisite: course
188SB. Limited to USIE facilitators. Individual
study in regularly scheduled meetings with fac-
ulty mentor while facilitating USIE 88S course. Indi-
vidual contract with faculty mentor required. May not
be repeated. Letter grading.

198. Advanced Honors Seminars. (1) Seminar, three
hours. Limited to 20 students. Designed as adjunct
to undergraduate lecture course. Exploration of topics in
greater depth through supplemental readings, papers,
or other activities and led by lecture course instructor.
May be applied toward honors credit for eligible stu-
dents. Honors content noted on transcript. P/NP or
letter grading.

198HC. Honors Contracts. (1) Tutorial, three hours.
Limited to students in College Honors Program. De-
signed as adjunct to pre-divisions lecture course. In-
dividual study with lecture course instructor to explore
topics in greater depth through supplemental read-
ings, papers, or other activities. May be repeated
to a maximum of 4 units. Individual honors contract
required. Honors content noted on transcript. Letter
ggrading.

191A. Variable Topics Research Seminars: German: (4)
Seminar, three hours. Requisite: course 6. Taught
in German. Research seminars on topics to be an-
nounced each term. Topics include major writers,
genres, cultural movements, or theoretical practices.
May be repeated for credit with consent of major ad-
viser. P/NP or letter grading.

191C. Capstone Seminar. (2) Seminar, three hours.
Limited to senior German majors. Collaborative dis-
cussion of and reflection on courses already taken for
major, focusing on larger themes and those culminating in paper or other final project. Must be
taken in conjunction with one course numbered 140 or
higher. Letter grading.

197. Individual Studies in German. (2 to 4) Tutorial,
three hours. Limited to juniors/seniors. Individual in-
tensive study, with scheduled meetings to be arranged
between faculty member and student. Assigned reading
and tangible evidence of subject matter required. May be repeated for credit. Individual
contract required. P/NP or letter grading.

199. Directed Research or Senior Project in Ger-
am. (4) Tutorial, three hours. Limited to juniors/se-
niors. Supervised individual research or investigation
under guidance of faculty mentor. Culuminating paper
or project required. May be repeated for credit. Indi-
vidual contract required. P/NP or letter grading.

Graduate Courses

201C. Theories of Literary Interpretation. (4) Lec-
ture, three hours. Survey and analysis of the reading
and interpretation of various models of literary interpretation and schools of thought such as hermeneutics,
psychoanalytic criticism, social historical approaches, semiotics, structur-
alism, and poststructuralism. Topics vary with in-
structor. Letter grading.

202A. Middle High German. (4) Lecture, three hours.
Introduction to Middle High German language, with
particular emphasis on developing facility in reading.
Study of grammar, syntax, and vocabulary combined
with introduction to poetic forms and cultural context.
Letter grading.

202B. Readings in Middle High German Literature. (4)
Lecture, three hours. Introduction to medieval
German literature and literary history and to use of
contemporary theory in study of medieval texts. Con-
tinued practice in reading Middle High German, al-
though practice is designed to be read in modern translation.
Letter grading.

204. Early Modern German Literature. (4) Lecture,
three hours. Selected readings from 1500 to 1700,
with introduction to development of German as modern literary language and to literary genres and
cultural models. Impact of Thirty Years’ War on
German literary production and reception in German
baroque. Letter grading.

206. Studies in Enlightenment Literature and Cul-
ture. (4) Lecture, three hours. Introduction to major
18th-century German texts from philosopohical, social-histor-
ical, psychohistorical, and literary perspectives. Letter
ggrading.

207. Weimar Classicism. (4) Lecture, three hours.
Reading and interpretation of major works of German
classicism. May include problems in reception of clas-
sicism by later authors and cultural theorists. Letter
ggrading.

208. Romanticism. (4) Lecture, three hours. Analysis
of selected works and theories of German Romantic
works such as Schlegel, Novalis, and Hoffman, with
attention to relationship between Romanticism and
other periods. Letter grading.

209C. 19th-Century Prose. (4) Lecture, three hours.
Analysis of prose works between Roman-
ticism and naturalism. Discussion of development of
literary realism and form of novella. Letter grading.

210A. Naturalism, Symbolism, and Expressionism. (4)
Lecture, three hours. Analysis of selected works of
(e.g., Debussy, Rimbaud, and Verlaine), and
cultural conflicts between wars, as well as innovations
in narrative technique. Letter grading.

211. Postwar Literature. (4) Lecture, three hours.
Study of major works by German-speaking authors
writing since World War II. Examination of issues such as identity crises, nationalism and divided Germany,
gender expectations, and social-political attitudes.
Letter grading.

212. Contemporary Literature and Culture. (4) Lec-
ture, three hours. Analysis of current cultural issues
and their relation to literary production and interpreta-
tions. Topics may include such as feminism,
postcolonialism, postmodernism, and contemporary
textualities of literary. Letter grading.

213. Topics in Literature and Film. (4) Lecture, three hours.
Topics will focus on different cultural representations and
social criticism, as well as in narrative form. May be repeated for credit. Individual
contract required. P/NP or letter grading.

230. Survey of Theory in Historical Linguistics. (4)
Lecture, three hours. Systematic overview of theories
historical linguistics. Letter grading.

231. Gothic. (4) Discussion, three hours. Systematic
study of phonology and grammar of Gothic language,
with readings in Wulfila’s translation of Bible and intro-
duction to history of Gothic language and the develop-
ment of modern Europe. S/U or letter grading.

232. Old High German. (4) Discussion, three hours.
Introduction to earliest phases of German literature,
with extensive readings in major documents of
that period (750 to 1050). Emphasis on grammatical inter-
pretation of these documents and identification of dia-
lects used in their composition. S/U or letter grading.

233. Old Saxon. (4) Discussion, three hours. Introduc-
tion to study of earliest documents in Old Low
German. Readings in Helian and study of Old Saxony
Genesis. S/U or letter grading.

238. Linguistic Theory and Grammatical Descrip-
tion. (4) Lecture, three hours. Enforced requisite: course
140 or Linguistics 20. Taught in English with
German proficiency required. Problems in structure of
Dutch and German, considering both from theoretical
frameworks such as sign-oriented linguistics, func-
tionalistics, discourse-pragmatics, and cognitive
linguistics. Discussion of formal linguistic approaches.
Concurrently scheduled with course C142. Graduate
students meet as group one additional hour each week and write research papers of greater length and
depth. Letter grading.

251. Seminar: Germanic Linguistics. (4) Seminar, three
hours. Current topics in synchronic or diachronic
linguistics, such as specific issues in generative
sociolinguistics and dialectology, or lan-
guage contact. Letter grading.
252. Seminar: Historical and Comparative Germanic Linguistics. (4) Seminar, three hours. Topics selected from field of historical German phonology and syntax according to needs and preparation of students enrolled (e.g., West Germanic problem and classification of Germanic languages, development of Germanic verbal and nominal morphology, proto-German syntax). S/U or letter grading.


256. Seminar: Enlightenment. (4) Seminar, three hours. Selected problems in cultural, literary, and philosophical thought. May include study of modern critiques of Enlightenment thought. Letter grading.

257. Seminar: Age of Goethe. (4) Seminar, three hours. Selected topics in literature and culture between 1775 and 1832, with special emphasis on work of Goethe and Schiller as it relates to philosophic texts between 1750 and 1830. Discussion of specific author or topic from Romantic period, possibly in close connection with course 208B. Critical review of secondary works. S/U or letter grading.

260. Seminar: Modern Period. (4) Seminar, three hours. In-depth analysis of one particular issue in pre-1945 German literature and culture. Letter grading.

261. Seminar: Contemporary Literature. (4) Seminar, three hours. In-depth analysis of one particular issue in modern German literature and culture. Letter grading.

263. Seminar: Literary Theory. (4) Seminar, three hours. Special focus on particular theoretical school or interpretive paradigm. Content varies with instructor. Letter grading.


265. German Philosophy. (4) Seminar, three hours. German philosophical tradition is one of most influential, difficult, and problematic Western world has known. Beginning with Kant’s Critique of Pure Reason and continuing through Hegel, Marx, Nietzsche, and Heidegger to Arendt and thinkers of Frankfurt school, German philosophers have explored, more deeply and rigorously than any other Western thinkers, nature and limits (if any) of human moral activity. Results have been basic to social, political, and aesthetic theory as well as to philosophy itself. Exploration of thought of one member of that tradition by concentrating yearlong on one secondary text. Letter grading.

375. Teaching Apprentice Practicum. (1 to 4) Seminar, to be arranged. Preparation: apprentice personnel employment as teaching assistant, associate, or fellow. May include membership under active guidance and supervision of regular faculty member responsible for curriculum and instruction at UCLA. May be repeated for credit. S/U grading.

495. Approaches to Foreign Language Pedagogy. (4) Seminar, three hours. Discussion, two hours. Issues include development of current theories of second-language acquisition, effects of these theories on language teaching, psycholinguistics, sociolinguistics, assessment techniques, use of multimedia in foreign language pedagogy, and design of syllabi for basic foreign language courses. S/U grading.

596. Directed Individual Study or Research. (4) Tutorial, three hours. To be arranged with faculty member who directs study or research. Required research paper must be filed with department chair. S/U grading.

597. Preparation for MA Comprehensive Examination or PhD Qualifying Examinations. (4) Tutorial, three hours. May include study of modern critiques of Enlightenment thought. Letter grading.


599. Research for and Preparation of PhD Dissertation. (4 to 12) Tutorial, three hours. To be arranged with faculty member who directs study. May be repeated. S/U grading.

Yiddish

Lower-Division Courses

10. From Old World to New: Becoming Modern as Reflected in Yiddish Cinema and Literature. (5) Lecture, three hours; discussion, one hour. Use of Yiddish cinema (classic films and documentaries) as primary focal points to examine ways in which one heritage culture, that of Ashkenazi Jews, adapted to forces of modernity (urbanization, immigration, radical social movements, assimilation, and destructive organized anti-Semitism) from late-19th century to present. Exploration of transformational themes in depth through viewing of selected films, readings, research and weekly papers, and in-class discussions. P/NP or letter grading.

19. Flat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

89. Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to lower-division lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

90HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to lower-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

99. Student Research Program. (1 to 2) Tutorial (supervised research or other scholarly work), three hours per week per unit. Entry-level research for lower-division students under guidance of faculty mentor. Students must be in good academic standing and enrolled in minimum of 12 units (excluding this course). Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP grading.

Upper-Division Courses

101A. Elementary Yiddish. (4) Lecture, four hours. Introduction to grammar; instruction in listening, speaking, reading, and writing skills. P/NP or letter grading.


102B-102C. Intermediate Yiddish. (4–4) Lecture, three hours. Requisite: course 102A. Course 102B is requisite to 102C. Grammatical exercises, reading and linguistic analysis of texts, conversation. P/NP or letter grading.


121C. Special Topics in Yiddish Literature in English Translation. (4) Lecture, three hours. Varying topics of importance and relevance to Yiddish literary study. Reading and analysis of wide range of 19th- and 20th-century literature. P/NP or letter grading.

130. Introduction to Yiddish Culture and Language through Film. (4) Lecture, three hours. Introduction to Yiddish language and culture with focus on classic Yiddish films and documentaries as integral tools for accessing culture associated with this heritage language. Viewing and discussion to gain deeper understanding and appreciation of complex and scope of Yiddish culture and in particular of annihilated Yiddish civilization of 20th century. These films represent most accessible way available to hear Yiddish spoken in fluid, natural manner. P/NP or letter grading.


131C. Special Topics in Yiddish Literature. (4) Lecture, three hours. Requisite: course 131A or 131B. Varying topics of importance and relevance to Yiddish literary study. Reading and analysis of wide range of 19th- and 20th-century literature. P/NP or letter grading.

189. Advanced Honors Seminars. (1) Seminar, three hours. Limited to students in College Honors Program. Designed as adjunct to undergraduate lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

189HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to upper-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

197. Individual Studies in Yiddish. (2 to 5) Tutorial, to be arranged. Limited to 10 students. Individual intensive study or more specialized investigation of topics in Yiddish, with scheduled meetings to be arranged between faculty member and student. Asigned reading and tangible evidence of mastery of subject matter required. May be repeated for credit. Individual contract required. P/NP or letter grading.

Graduate Courses

596. Directed Individual Study or Research in Yiddish. (4) Tutorial, to be arranged with faculty member with written proposal of course section to be identified by two-letter code using initials of sponsoring instructor—see department for ID number). May be repeated once. S/U grading.
Each minor course must be taken for a letter grade, and students must have an overall grade-point average of 2.0 or better in the minor. Successful completion of the minor is indicated on the transcript and diploma.

**Gerontology**

**Interdisciplinary Minor**

Meyer and Renee Luskin School of Public Affairs

3343 Public Affairs Building

Box 915656

Los Angeles, CA 90095-1656

**Gerontology**

310-825-7388

E-mail contact

Lené F. Levy-Storms, MPH, PhD, Co-Chair

David B. Reuben, MD, Co-Chair

**Faculty Committee**

Michael R. Irwin, MD (Psychology)

Lené F. Levy-Storms, PhD, MPH (Social Welfare)

David B. Reuben, MD (Medicine)

Theodore F. Robles, PhD (Psychology)

Gary W. Small, MD (Psychiatry and Biobehavioral Sciences)

Fernando M. Torres-Gil, PhD (Public Policy, Social Welfare)

Steven P. Wallace, PhD (Community Health Sciences)

**Scope and Objectives**

The worldwide expansion of the older adult population ensures that issues regarding aging will dominate our environmental, economic, social, political, psychological, and medical concerns and endeavors well into the twenty-first century. The undergraduate minor in Gerontology (1) provides students with a foundation understanding of the current state of science related to human aging, (2) enables students to assess longevity’s potential contribution and challenge to contemporary society, and (3) provides students with an appreciation of opportunities to contribute, personally and professionally, to a diverse aging society.

**Undergraduate Study**

**Gerontology Minor**

To enter the Gerontology minor, students must have an overall grade-point average of 2.0 or better and a grade of B or better in Gerontology M108.

**Required Upper-Division Courses (28 to 32 units):**


Students who have completed Clusters 80A with a grade of B or better, and have an overall grade-point average of 2.0 or better, do not need to take Gerontology M108. Successful completion of this cluster sequence (Clusters 80A, 80B, 80CW) counts for CM108 and one elective course.

A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor.
maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

195CSE. Community or Corporate Internships in Gerontology. (4) Tutorial, one hour; internship (approved community setting), eight hours. Requisites: course M108, or GE Clusters 80A and 80B. Limited to juniors/seniors. Internship in applications of gerontology in supervised setting in community agency or business coordinated by Center for Community Learning. Students meet on regular basis with internship coordinator and must submit weekly writing assignments and final paper at end of term. Eight units of 195CSE (or 198CE) are required for successful completion of Gerontology minor. Individual contract with supervising placement sponsor required. Information and contracts may be obtained from Gerontology Advising Office. (310) 206-8966, paul@spa.ucla.edu. Letter grading.

199. Directed Research or Senior Project in Gerontology. (4) Tutorial, to be arranged. Requisites: course M108, or GE Clusters 80A and 80B. Limited to juniors/seniors. Supervised individual research under guidance of gerontology faculty mentor. Submission of weekly writing assignments and research paper at end of term. Eight units of 199 (or 195CSE) required for successful completion of minor. Individual contract required. Information and contracts may be obtained from Gerontology Advising Office. Letter grading.

GLOBAL HEALTH

Interdisciplinary Minor College of Letters and Science

10256 Bunche Hall
Box 951478
Los Angeles, CA 90095-1487

Global Health
310-206-6571

Minor e-mail

Michael A. Rodriguez, MD, MPH, Chair

Faculty Committee
Victor Agadjanian, PhD (Sociology)
David H. Oere, PhD (World Arts and Cultures/Dance)
Ippolytos A. Kalofonos, MD, PhD (Psychiatry and Biobehavioral Sciences)
Michael F. Lofchie, PhD (Political Science)
Anne W. Rimoin, PhD (Epidemiology)
Michael A. Rodriguez, MD, MPH (Community Health Sciences, Family Medicine)

Scope and Objectives

The Global Health minor allows students to develop an interdisciplinary understanding of health issues in a global context. Students take courses that provide opportunities to become familiar with approaches to global health from the perspective of the social sciences, arts, and humanities, as well as the physical and biological sciences. The minor is appropriate for students from all majors.

Undergraduate Study

Global Health Minor

To be admitted to the minor, students must be in good academic standing (overall grade-point average of 2.0 or better) and have completed all lower-division minor courses with a GPA of 2.0 or better in those courses.

After satisfying these requirements, students may declare the minor in consultation with the academic counselor.

Required Lower-Division Courses (10 units):
Two courses from Civil and Environmental Engineering 58SL, Clusters 80A, 80B, 80CW, Community Health Sciences 91, Global Studies 1, History 3D, Honors College 1, 14, 26, International and Area Studies 1, Molecular, Cell, and Developmental Biology 60, 70, Nursing 50, Statistics 13, World Arts and Cultures 2, 33.

Required Upper-Division Courses (20 to 25 units):
Global Health 100 and four courses from the following theme areas, with a maximum of two courses from any single area:

Art: World Arts and Cultures 144, C158, C159, 160.

Community Health: Community Health Sciences 100, 161, CM170, 187A, 187B, 195, Health Policy and Management 140, Medicine M160A, M160B, Psychiatry and Biobehavioral Sciences 175, Psychology 150.

Environmental Health: Environment 166, M167, Environmental Health Sciences 100, C185A, C185B.

Genetics: Honors College 141, Sociology and Genetics 162, 163.


Health Humanities and Communication: English Composition 131C, History 179A, 179B.


A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor. Each minor course must be taken for a letter grade, and students must have an overall grade-point average of 2.0 or better in the minor. Successful completion of the minor is indicated on the transcript and diploma.

Global Health

Lower-Division Courses

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

89. Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to lower-division lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

99HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to lower-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

99. Student Research Program. (1 to 2) Tutorial (supervised research or other scholarly work), three hours per week per unit. Enrollment by permission of 195CSE students under guidance of faculty mentor. Students must be in good academic standing and enrolled in minimum of 12 units (excluding this course). Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP grading.

Upper-Division Courses

100. Global Health and Development. (4) Lecture, three hours; discussion, one hour (when scheduled). Interdisciplinary examination of key issues in area of global health, with focus on developing world. Provides basis for understanding current debates that frame global health problems and actions in and across nations with strikingly different political-economic contexts. Discussion of how local and international communities attempt to address challenges of global health problems and how interventions play out through range of policy and programmatic approaches. P/NP or letter grading.

110A-110B. Field Studies in Global Health. (4–4) Seminar, three hours. Enforced corequisite for course 110A: course 110B. Exploration of issues regarding global health in important locations around world. Hands-on experiential courses offered for students participating in UCLA Travel Study Program. Field trips included to gain first-hand experience. May be repeated with topic and/or location change. Offered in summer only. P/NP or letter grading.

150. Migration and Health. (4) Lecture, three hours; discussion, one hour. Introduction to history, current status, and future of migration and health using social determinants of health model to foster multidisciplinary analysis of status of migrant health around world. Exploration of social determinants of health affecting migrating populations, including gender, race, ethnicity, socioeconomic status, poverty, religion, politics, governance, and environment. Letter grading.

160. Selected Topics in Global Health. (4) Lecture, three hours; discussion, one hour (when scheduled). Examination of one or more topics related to global health. May be repeated for credit with topic change. P/NP or letter grading.

189. Advanced Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to undergraduate lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

189HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to upper-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

Undergraduate Study

The Global Jazz Studies major is a designated capstone major. The capstone project, usually done in the senior year, is tailored to each student and includes a seminar class (course 186A) and a capstone presentation such as a recital, lecture-demonstration, or lecture-recital (186B). The capstone experience provides an appropriate vehicle for the faculty to assess the students’ accomplishments during their tenure in the program.

Global Jazz Studies BA

Capstone Major

Learning Outcomes

The Global Jazz Studies major has the following learning outcomes:

- Advanced-level performance of multiple jazz styles across historical periods and contemporary jazz performance practices
- Demonstrated proficiency in styles representative of Africa, the African diaspora, and at least one other world musical culture
- Demonstrated advanced skill and understanding in improvisation, musical structure and instrumentation, composition, arranging, timbre, and expression
- Demonstrated basic proficiency in areas of programming, recording, and/or post-production
- Demonstrated interdisciplinary knowledge of global jazz as text and method
- Introspection of the concerns of jazz as a comprehensive practice, including its capacity to transform the musical, political, and socioeconomic world it engages

Admission

Applicants are reviewed individually, based on a questionnaire, grade-point average, test scores, a personal statement of purpose, and an on-campus audition. Applicants who are unable to travel to UCLA have the option of submitting a video audition in place of the on-campus audition.

Preparation for the Major

All entering freshmen are required to take the Music Theory Assessment Examination either during New Student Orientation or during zero week of fall quarter. The examination score is used to determine eligibility and placement in first-year music core courses (Music M6A, M6B, M6C and 20A, 20B, 20C). Examination results may require enrollment in Music 3 as a requisite to both courses M6A and 20A. Entering transfer students with fewer than 15 units of prior music theory must take the Music Theory Assessment Examination. Required: Ethnomusicology 20B or 20C (5 units), 4 units from 91E and/or 91P, 4 units from 68A though 68D and/or 91A through 91Z (except 91E and 91P); Global Jazz Studies M12A, M12B (10 units), 12 units from 71A through 71I (students must enroll in a studio each quarter); and Music M6A, M6B, M6C (6 units). Each course must be completed with a grade of C or better.

Transfer Students

Transfer applicants to the Global Jazz Studies major with 90 or more units must complete as many of the following introductory courses as possible prior to admission to UCLA: one to two years of jazz studio instruction (equivalent to Global Jazz Studies 71A through 71I) and one year of musicianship (equivalent to Ethnomusicology M6A, M6B, M6C).

Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

The Major

Required: 72 units from the areas below. Each course must be taken for a letter grade and be completed with a grade of C or better. No more than eight units from upper-division tutorials (195-199) may be applied toward the degree.

Performance (24 units)—12 units of studio coursework from Global Jazz Studies 171A through 171I, 4 units of small jazz combo (Global Jazz Studies 175), 8 units of large jazz ensemble (Global Jazz Studies 176A through 176G). Students must enroll in a studio class and at least one combo or ensemble each quarter.


Scholarly foundations (20 units)—Global Jazz Studies 101, 125; one course (at least 4 units) selected from each of the following three subject areas: African American Studies 108, 150D, 150S, Global Jazz Studies M109, M119, M130, M131, 165, 188, 199, Music Industry 102, 104A, 107A, 115.

Capstone seminar and project (4 units)—Global Jazz Studies 186A, 186B.

Global Jazz Studies Lower-Division Courses

M12A-M12B. African American Musical Heritage. (5-6) (Same as African American Studies M12A-M12B and Ethnomusicology M12A-M12B.) Lecture, four hours; discussion, one hour. P/NP or letter grading. M12A. Sociocultural history and survey of African American music covering Africa and its impact on America; music of 17th through 19th centuries; minstrelsy and its impact on representation of blacks in film, television, and theater; religious music, including hymns, spirituals, and gospel; black music of Caribbean and Central and South America; and music of black Los Angeles. M12B. Sociocultural history and survey of African American music covering blues, pre-1947 jazz styles, rhythm ’n’ blues, soul, funk, disco, hip-hop, and symbiotic relationship between recording industry and effects of cultural politics on black popular music productions.

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

M25. Global Pop. (5) (Same as Ethnomusicology M25.) Lecture, four hours; discussion, one hour. Development of world music or world beat, including its meaning and importance to contemporary culture as well as its history and impact. P/NP or letter grading.
M35. Blues, Society, and American Culture. (5) (Same as Ethnomusicology M35.) Lecture, four hours; discussion, one hour. Sociocultural history and survey of blues music tradition from its roots in West Africa to its emergence in African American oral culture, with emphasis on philosophical underpinnings and social and political impact of blues and its influence on development of country, jazz, gospel, rhythm and blues, rock, hip-hop music, and other mediums. P/NP or letter grading.

M50A-M50B. Jazz in American Culture. (5–5) (Same as Ethnomusicology M50A-M50B.) Lecture, four hours; discussion, one hour. Course M50A is not required for students majoring in American culture. Discussion of different compositional/performance techniques and approaches that distinguish different sub-styles of jazz from one another, as well as key historical figures that shaped development of jazz from its early years through modern jazz. Important historical social issues (segregation, Depression, World War II, Civil Rights Movement) that intersect with theory of U.S. and jazz music. P/NP or letter grading. M50A. Late 19th Century through 1940s; M50B. 1940s to Present.

17A-711. Instruction in Jazz Performance. (2 each) (Formerly numbered Ethnomusicology 71A-71F) Studio, six hours; individual instruction. Limited to Global Jazz Studies majors. Knowledge of jazz repertoire, concepts, and techniques gained through private lessons on specific instruments and voice. Students must be able to demonstrate their performance skills and receive assessment of their progress in learning material. May be repeated for maximum of 12 units. Letter grading. 71A. Trumpet; 71B. Trombone; 71C. Piano; 71D. Saxophone; 71E. String Bass; 71F. Trombone; 71G. Trumpet; 71H. Voice.

99. Student Research Program. (1 to 2) (Supervised research or other scholarly work), three hours. Exploration of assimilation and retention of jazz from U.S. in various countries, with particular emphasis on cultural and social features that form basis for new jazz-ethnic music blends. Letter grading.

M103. Creating Musical Community. (4) (Same as Ethnomusicology M103, Music M103, and Musicology M103.) Lecture, four hours; discussion, one hour. Limited to school of music majors. Faculty and students make music together in different modes. Students learn certain repertoire, refine it, and bring it to concert performance. Students critically engage musical literacies and notions of social contract that forms basis of performance. Students critically engage musical literacy, learn certain repertoire, refine it, and bring it to concert performance. Students critically engage musical literacy, learn certain repertoire, refine it, and bring it to concert performance. P/NP grading.

M109. Women in Jazz. (4) (Same as African American Studies M109, Ethnomusicology M109, and Gender Studies 109) Lecture, four hours; discussion, one hour. Limited to school of music majors. Survey of women vocalists, instrumentalists, composers, songwriters, and producers who have had significant influence on jazz and female musicians and composers who have had significant influence on jazz and female musicians and composers who have had significant influence on jazz and female musicians and composers who have had significant influence on jazz and female musicians and composers who have had significant influence on jazz and female musicians and composers who have had significant influence on jazz. P/NP or letter grading.

M111. Ellingtonia. (4) (Same as African American Studies M111 and Ethnomusicology M111.) Lecture, three hours. Music of Duke Ellington, his life, and far-reaching influence of his efforts, Ellington's music, known as Ellingtonia, is one of largest and perhaps most important bodies of music ever produced in U.S. Covers many contributions of other artists who have worked with Ellingtonia, as composer Billy Strayhorn and musicians Johnny Hodges, Count Basie, and Mercer Ellington. P/NP or letter grading.

M119. Cultural History of Rap. (5) (Same as African American Studies M119 and Ethnomusicology M119) Lecture, four hours; discussion, one hour. Introduction to development of rap music and hip-hop culture, with emphasis on musical and verbal qualities, philosophical and political ideologies, and social and political influences on contemporary hip-hop culture. P/NP or letter grading.

122A-122B-122C. Jazz Styles and Analysis. (4–4–4) (Formerly numbered Ethnomusicology C122A-C122B-C122C.) Lecture, four hours; discussion, one hour; laboratory, eight hours. Limited to Global Jazz Studies majors or consent of instructor. In-depth analysis of jazz styles and evolution of jazz as used by students with music background. Letter grading. 122A. Early Jazz to Swing Era; 122B. Bebop to Avant-garde; 122C. Jazz since Sixties.

125. Jazz Arranging and Orchestration. (4) Lecture, three hours. Limited to Global Jazz Studies majors. Study of specific instruments and their unique use and application in jazz (jazz notation and terminology, transposition, woodwind doubleings, brass mutues, etc.). Analysis of different writing techniques and approaches that distinguish different sub-styles of jazz from one another. Assignments focus on writing for medium and large ensembles, with final project of arrangement to be performed by UCLAJazz Orchestra. P/NP or letter grading.

127A-127B-127C. Jazz Keyboard Harmony I, II, III. (2–2–2) (Formerly numbered Ethnomusicology 127A-127B-127C-Lab.) Laboratory, two hours; outside study, four hours. Course 127A with grade of C or better is requisite to 127B; course 127B with grade of C or better is requisite to 127C. Study of jazz harmony through use of piano keyboard. Letter grading.

128. Exploring in Rhythms. (2) (Same as Ethnomusicology M128.) Lecture, two hours; outside study, four hours. Preparation: ability to read melodic or rhythm notation. Investigation and exploration of musical time and rhythm in 20th- and 21st-century classical, jazz, world, and popular music. Concepts explored include meter, pulse, rhythmic cycles, hemiolas, and polyrhythms. P/NP or Letter grading.


131A. Cultural Theory of Jazz Aesthetics. (4) (Same as Anthropology M131 and Ethnomusicology M131) Lecture, three hours. Integration of academic work and hands-on training in outreach program. Participation in theoretical discussions of jazz education and application of theoretical processes in elementary and secondary music classrooms and social studies classrooms. P/NP or letter grading.

132. Development of Latin Jazz. (4) (Same as Ethnomusicology M132 and Music M132) Lecture, four hours; discussion, three hours. Development of Latin jazz from its early years through modern day. Important historical social issues (segregation, Depression, World War II, Civil Rights Movement) that intersect with theory of U.S. and jazz music. P/NP or letter grading.

171A-171L. Instruction in Advanced Jazz Performance. (2–2–2) (Formerly numbered Ethnomusicology 171A-171L-Fourth hour of individual instruction: outside study, seven hours. Limited to junior/senior Global Jazz Studies majors. Study of jazz repertoire and techniques for specific instruments and voice. Grades are assigned by student instructor in fall and winter quarters and by jury examination in spring quarter. May be repeated for maximum of 12 units. Letter grading. 171A. Bass; 171B. Trumpet; 171C. Piano; 171D. Saxophone; 171E. String Bass; 171F. Trombone; 171G. Trumpet; 171H. Voice.

175. Jazz Combo. (2) (Formerly numbered Ethnomusicology 175.) Activity, two hours; laboratory, four hours. Preparation: audition. Exploration of composition and improvisation more intensely in smaller jazz combination groups of four to eight musicians. May be repeated for maximum of 12 units. Letter grading.

176A-176G. Large Jazz Ensembles. (2 each) Activity, four hours; outside study, four hours. Exploration of assimilation and retention of jazz from U.S. in various countries, with particular emphasis on cultural and social features that form basis for new jazz-ethnic music blends. Letter grading.

179B. Capstone. (1) Seminar, two hours; outside study, seven hours. Limited to senior Global Jazz Studies majors. With approval from faculty advisers, students develop and prepare one-hour recital consistent with global dimensions of major, and reflect on process. In lieu of recital, students may develop research-based project, which includes comparable public event (e.g., lecture-demonstration or lecture-recital).

186A. Seminar. (2) Seminar, two hours; outside study, seven hours. Limited to senior Global Jazz Studies majors. With approval from faculty advisers, students develop and prepare one-hour recital consistent with global dimensions of major, and reflect on process. In lieu of recital, students may develop research-based project, which includes comparable public event (e.g., lecture-demonstration or lecture-recital).

188. Special Topics in Global Jazz Studies. (2 to 4) Lecture, two to four hours; outside study, four to eight hours. Selected topics in global jazz studies. Consult Schedule of Classes for topics and instructors. May be repeated for credit. P/NP or letter grading.

196. Jazz Teaching Practicum. (4) Seminar, two hours; fieldwork, four hours; outside study, seven hours. Limited to junior/senior Jazz Studies majors. Integration of academic work and hands-on training in outreach program. Participation in theoretical discussions of jazz education and application of theoretical processes in elementary and secondary music classrooms and social studies classrooms. P/NP or letter grading.

197. Individual Studies in Global Jazz Studies. (2 to 4) Tutorial, one hour; outside study, five to 11 hours. Preparation: 3.0 grade-point average. Limited to senior Global Jazz Studies majors. Individual intensive study with scheduled meetings to be arranged between faculty member and student. Tangible evidence of mastery of subject matter resulting in final research project required. May be repeated for maximum of 12 units. Individual contract required. P/NP or letter grading.

199. Directed Research in Global Jazz Studies. (2 to 4) Tutorial, to be arranged. Limited to junior/senior Global Jazz Studies majors. Individual intensive study with scheduled meetings to be arranged between faculty member and student. Tangible evidence of mastery of subject matter resulting in final research project required. May be repeated for maximum of 12 units. Individual contract required. P/NP or letter grading.
The curriculum draws on insights from disciplines across the humanities and social sciences to give students the theoretical and methodological skills and knowledge base necessary to understand this complex and rapidly changing world.

**Undergraduate Study**

The Global Studies major is a designated capstone major. As students progress through the major, they move from a set of broad themes, theories, and perspectives to a more specialized focus about which they develop a specific research expertise and write a thesis. In completing the capstone, students should demonstrate an appropriate mastery of a specialized area of global studies and a critical understanding of current scholarly concerns, literatures, and debates. They should also be able to identify and analyze primary sources and use those sources and appropriate scholarly literature to design and carry out a research project.

**Global Studies BA**

**Capstone Major**

**Learning Outcomes**

The Global Studies major has the following learning outcomes:

- Critical thinking about basic political processes, institutions, and concepts as they operate in different national and cultural contexts
- Impartial evaluation of arguments
- Application of mathematical and logical reasoning to political processes
- Use and evaluation of statistical and other types of evidence in arguments
- Recognition of limits of quantitative and non-quantitative analysis
- Knowledge of diverse theories of politics acquired through critical engagement with texts, media, and contexts
- Location, evaluation, and use of information and scholarship to place political events in broader historical, cross-national, and theoretical contexts
- Employment of cultural, hermeneutical, normative, and historical approaches
- Written and oral arguments using appropriate evidence, with sensitivity to opposing perspectives, about significant political processes, events, and concepts

**Admission**

Admission to the Global Studies major is by application only and is highly competitive, with only a limited number of students admitted each year. To be eligible to apply, UCLA students must have completed all nonlanguage preparation for the major courses and one modern foreign language course, and demonstrated proficiency equivalent to level 6 at UCLA in one modern foreign language; and five additional courses as follows: (1) one culture and society course selected from Anthropology 3, 4, Comparative Literature 1C or 2C, 1D or 2D, 4CW or 4DW, Ethnomusicology M25, Gender Studies 10, Geography 3, 6, History 2B, World Arts and Cultures 20, and 33, (2) one governance and conflict course selected from History 10B, 22, Political Science 10, 20, 50, 50R, or Sociology 1, and (3) one markets and resources course selected from Economics 1, 2, Environment 12, Clusters MIA, or Sociology 51. The remaining two courses, taken from two separate categories, may be selected from the three lists above. One course from the following list may be applied toward the culture and society category: Asian 70C, Asian American Studies 10, Chicana and Chicano Studies 108, French 14, 14W, History 8A, 9E, International and Area Studies 31, 33, 50, Italian 42A, 42B, 46, Middle Eastern Studies M50CW, Russian 90A, 90B, 90WB, Spanish 42, or 44. A minimum grade-point average of 3.25 is required in these courses.

**Transfer Students**

Transfer applicants to the Global Studies pre-major with 90 or more units must complete as many of the following introductory courses as possible prior to admission to UCLA: one modern world history course, one major world region languages and cultures course, one international politics course, one macroeconomics or microeconomics course, one statistics course, and demonstrated proficiency equivalent to level 3 at UCLA in one modern foreign language. Transfer students must apply for the major by the end of fall quarter of their junior year.

Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

**The Major**

**Required:** Global Studies 102, 103, 104, and six elective courses, two each from the following categories:

- Culture and Society—Anthropology 146, M148, Asian American Studies M130C, M170A, M172A, M172C, Chicana and Chicano Studies 120, 143, CM147, Com-
parative Literature 100, M148, English 130, 131, 133, 134, Film and Television 106C, 112, French 121, 142, Gender Studies 102, M147C, M162, Geography 141, 151, 175A, Political Science M184A, Religion M107, Southeast Asian 157, Society and Genetics 134, Sociology 151, 152, 154, M162, 191F


Required Summer Global Learning Institute: After successful completion of two courses from Global Studies 102, 103, 104, students are expected to attend a summer Global Learning Institute at one of several locations around the world in which they enroll in Global Studies 110A and 110B.

Required Capstone: During their senior year, students must also take four capstone courses—Global Studies 191 and 194 in fall quarter, followed by 199A and 199B. Courses 199A and 199B culminate in a capstone senior thesis of 35 to 50 pages.

Honors Program

To qualify for departmental honors, students must (1) have a grade-point average of 3.5 or better in upper-division courses in the major, (2) have a cumulative GPA of 3.5 or better, and (3) complete Global Studies 199B with a grade of A—or better. Honors or highest honors may be granted at the discretion of the faculty sponsor and the faculty committee to students demonstrating exceptional ability on the senior thesis.

Global Studies Minor

The Global Studies minor offers students a multidisciplinary curriculum in the humanities and social sciences through which they can explore the complex and multifaceted interconnections that characterize the contemporary world. The minor is designed to complement and enrich studies in their major.

To enter the minor, students must (1) be in good academic standing (minimum 2.0 grade-point average) and (2) have completed Global Studies 1 and one course in two of the following three categories: (a) culture and society—Anthropology 3, 4, Asian 70C, Asian American Studies 10, Chicana and Chicanos 108, Comparative Literature 1C or 2C, 1D or 2D, 4CW or 4DW, Ethnomusicology 25, French 14, 14W, Gender Studies 10, Geography 3, 6, History 28, 8A, International and Area Studies 31, Italian 42A, 42B, Middle Eastern Studies M50CW, Russian 90B, 90BW, Spanish 42, 44, World Arts and Cultures 20, or 33, (b) governance and conflict—History 108, 22, Political Science 10, 20, 50, 50R, or Sociology 1, and (c) markets and resources—Economics 1, 2, Environment 12, Clusters MIA, or Sociology 51.


After completing at least two courses from Global Studies 102, 103, 104, Global Studies minors are highly encouraged to participate in a summer Global Learning Institute at one of several locations around the world. The courses offered, Global Studies 110A and 110B, may be applied toward any two of the elective categories (culture and society, governance and conflict, and markets).

A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor.

Each minor course must be taken for a letter grade, and students must have an overall grade-point average of 2.0 or better in the minor. Successful completion of the minor is indicated on the transcript and diploma.

Global Studies

Lower-Division Courses

1. Introduction to Globalization. (5) Lecture, three hours; discussion, one hour. Introduction to concept and history of globalization, and to political, economic, social, and environmental dimensions of global integration today. Topics include finance and trade, colonialism, Industrial Revolution, urbanization, immigration, and climate change, among others. P/NP or letter grading.

10. International Diplomacy and Foreign Affairs. (2) Lecture, 15 hours; discussion, 15 hours. Limited to high school students participating in Model United Nations (UN) 101. One-week intensive summer course, including lectures in international relations and outside study. Development of position papers in simulation of United Nations and final presentation in respective UN committees. Particular emphasis on public speaking and cooperative debate. May be repeated for credit without limitation. Offered only as part of Summer Institute. P/ NP grading.

15. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of culture. One thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

89. Honors Seminars. (1) Seminar, three hours. Limited to 20 students, 15A or 15B. Designed as adjunct to lower-division lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor.

May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

99HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to lower-division course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

99. Student Research Program. (1 to 2) Tutorial (supervised research or other scholarly work), three hours per week per unit. Entry-level research for lower-division students under guidance of faculty mentor. Students must be in good academic standing and enrolled in minimum of 12 units (excluding this course). Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP grading.

Upper-Division Courses

102. Globalization: Markets and Resources. (5) Formerly numbered 100B.) Lecture, three hours; discussion, one hour. Requisite: course 101. Examination of how domestic and international policies determine how global economy is governed. Topics include monetary and capital policy, trade, international investment, and migration. Letter grading.


110A. Globalization in Context. (5) Lecture, six hours. Requisite: course 100B. Corequisite: course 110B. Culture, economy, history, and politics of different locations around world and how they are affected by globalization. Field trips included to gain first-hand experience of these processes. Offered in summer only. P/NP or letter grading.


120. Introduction to International Business. (4) Lecture, three hours; discussion, one hour (when scheduled). Over last few decades, world increasingly become globalized, presenting many new opportunities for businesses and entrepreneurs. However, recent world events have demonstrated volatile nature of globalization and pitfalls that can also manifest for firms doing business in global settings. Students gain understanding of dynamic environment of international business, and how firms navigate complex world of international business to capitalize upon opportunities and mitigate against risks. P/NP or letter grading.

125. Los Angeles as Global City: Exporter and Importer of Global Culture. (4) Lecture, three hours; discussion, one hour. Examination of phenomenon of globalization through prominent case of Los Angeles. Focus on how city produces global culture, including filmed entertainment and culture of celebrity and food; and how it absorbs cultural inputs from world over. Emphasis on interactive relationship between export and import of global culture. City’s distinct cultural milieu influences nature of its cultural exports, but its viability as cultural capital depends on its ability to accommodo-
date integrate diversity of cultures. Study creates immersive experience through films, guest speakers, and urban field trips. P/NP or letter grading.

140. Hollywood and America's Global Image. (4) Lecture, three hours; discussion, one hour (when scheduled). Hollywood movies and television shows are meant to reach limited audiences by exporting stories and images that demonstrate our shared humanity. But they also reveal unpleasant truths about American attitudes toward foreign cultures as well as our own. Examination of critical aspects of Hollywood's role in shaping America's global image. Questioning of whether Hollywood can be more effective as America's cultural ambassador. P/NP or letter grading.

160. Selected Topics in Global Studies. (4) Lecture, three hours; discussion, one hour (when scheduled). Examination of one or more topics related to global studies. May be repeated for credit with topic change. P/NP or letter grading.

188A-188B. Special Studies in Global Studies. (4–4) Seminar, three hours. Program-sponsored experimental or temporary courses, such as those taught by resident or visiting faculty members. May be repeated for credit with topic change. Letter grading.

189. Advanced Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to undergraduate lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

189HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to upper-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.


192. Undergraduate Practicum in Global Studies. (2) Seminar, two hours; practicum, to be arranged. Limited to juniors/seniors. Training and supervised practicum for advanced undergraduate students to serve as undergraduate course assistants in global studies courses. Students assist in preparation and presentation of material and development of innovative programs with guidance of faculty members. May not be applied toward major requirements. May be repeated for credit. P/NP grading.


Graduate Course

375. Teaching Apprentice Practicum. (1 to 4) Seminar, to be arranged. Preparation: apprentice personnel employment as teaching assistant, associate, or fellow. Teaching apprentice/ship under active guidance and supervision of regular faculty mentor responsible for curriculum and instruction at UCLA. May be repeated for credit. S/U grading.

GRADUATE STUDENT PROFESSIONAL DEVELOPMENT

Graduate Division

1255 Murphy Hall
Box 952801
Los Angeles, CA 90095-2801

Graduate Division

310-825-3819

Graduate Academic Services e-mail

Graduate Student Professional Development

Graduate Courses

495CE. Supervised Preparation for Community-Engaged Teaching. (4) Seminar, two hours. Suitable for graduate students in any discipline. Introduction to best practices for experiential learning and academic civic engagement, with emphasis on critical service learning pedagogy and strategies for collaborating effectively with diverse communities of Los Angeles. Facilitated by Center for Community Learning. S/U grading.

496A. Introduction to Evidence-Based Undergraduate Teaching. (2) Seminar, 90 minutes. Designed for graduate students and postdoctoral scholars. Exploration and practice of fundamental principles of learning, backward design, assessment, active learning, and inclusive teaching. Lesson plan design with feedback. Meets associated with CIRTL certification requirement. May be repeated once for credit. S/U grading.

496B. Teaching as Research. (2) Seminar, 90 minutes. Requisite: course 496A or equivalent. Students become reflective practitioner by applying systematic and reflective use of research methods to develop teaching practices in order to advance learning experiences and outcomes of students and teachers. Students produce proposal for TAR project. May be repeated once for credit. S/U grading.

496C. Implementing and Communicating Teaching as Research Project. (2 to 4) Tutorial, three to six hours; research group meeting, two to four hours. Requisite: course 496B. Implementation, data analysis, and communication of results of TAR project with feedback and approval of faculty-mentor and peer support in local community. Meets practitioner level of CIRTL certification requirement. S/U grading.

HEAD AND NECK SURGERY

David Geffen School of Medicine

62-132 Center for Health Sciences
Box 951624
Los Angeles, CA 90095-1624

Head and Neck Surgery

310-825-5179

Gerald S. Berke, MD, Chair

Scope and Objectives

The Department of Head and Neck Surgery academic programs consist of a nationally recognized residency program, medical school education, prestigious fellowships, and ongoing continuing medical education. A critical success factor in these academic efforts is the high level of clinical expertise demonstrated by all faculty members. Additionally, department faculty members have an active commitment to basic science and clinical research as an integral component of the program of instruction. These tenets not only ensure quality at every educational level, but also provide a superior milieu for the development of teacher-investigators.

The residency program is incorporated into the department patient care and research activities in six affiliated medical centers and exposes residents to all of the subspecialties during the course of their training. Medical student teaching is a combined effort by faculty members, fellows, and residents and consists of lectures, didactic learning, and hands-on experience in clinical and research settings. The department offers one- and two-year fellowships.

For more details on the Department of Head and Neck Surgery and courses offered, see the department website.

HEALTH POLICY AND MANAGEMENT

Jonathan and Karin Fielding School of Public Health

31-269 Center for Health Sciences
Box 951772
Los Angeles, CA 90095-1772

Health Policy and Management

310-825-2594

Department e-mail

Jack Needleman, PhD, Chair

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Professors

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Jonathan E. Fielding, MD, PhD, in Residence
Patricia A. Ganz, MD
Lillian Gelberg, MD, MSPH
Beth A. Glenn-Malloux, PhD
Neal Halfon, MD, MPH

Neal Halfon, MD, MPH
Scope and Objectives

The field of health policy and management examines the organization and financing of various health sectors and provides social systems to prevent and treat diseases. This includes programs in both the public and private sectors at all levels—local, state, and federal.

Faculty members come from diverse fields such as economics, management, law, statistics, operations research, planning, medicine, history, sociology, and political science. These diverse disciplines are harmonized by their devotion to solving problems—through quantitative, qualitative, and mixed method analyses—in the financing and delivery of health policy and management, with a focus on populations rather than individual patients.

The Department of Health Policy and Management offers both practice-oriented and research-oriented graduate programs. The primary professional degree, the Master of Public Health (MPH), includes training in various aspects of health administration such as policy formulation, health planning, organization, and management. For information on the MPH and concurrent degree programs, see Public Health Schoolwide Programs.

For those interested in careers in research and teaching, the department offers a Master of Science (MS) and a PhD degree. These programs maintain close ties with related activities in the schools of Dentistry and Medicine, including the UCLA National Clinician Scholars Program. The MS and PhD students have the opportunity to collaborate with the department’s seven existing centers by actively engaging in progressive health services research across a wide breadth of topics, examining issues and finding solutions to critical health care problems locally, nationally, and globally.

Graduate Study

Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduation Division website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Graduate Degrees

The Department of Health Policy and Management offers Master of Science (MS), Doctor of Philosophy (PhD), and Executive MPH (EMP) degrees in Health Policy and Management.
Lecture, four hours. Requisite: Mathematics 3A or 3B numbered 203A. (Same as Public Policy M201A.) (Same as Microeconomics 21B.) Extensive use of differential calculus. Letter application to actual situations and their use in concepts of microeconomics, with emphasis on their management. (4)

M201. Topics in Theoretical Epidemiology. (2) (Same as Epidemiology M203.) Lecture, two hours. Selected topics from current research areas in epidemiologic theory and quantitative methods. Topics selected from biologic models, epidemiologic models, problems in inference, model specification problems, design issues, analysis issues, and confounding. May be repeated for credit with consent of instructor. S/U grading.

M203A. Applied Microeconomics. (4) (Formerly numbered 203A.) (Same as Public Policy M201A.) Lecture, four hours. Requisite: Mathematics 3A or 3B or 3TA. Conceptual basis for microeconomic concepts of microeconomics, with emphasis on their application to actual situations and their use in problem solving and focus on theory of choice. Extensive use of differential calculus. Letter grading.

M203B. Applied Microeconomics. (4) (Formerly numbered 203B.) (Same as Public Policy M204A.) Lecture, four hours. Requisite: course M203A, and one course from Mathematics 3A, 3B, or 3TA. Conceptual basis for microeconomic concepts of microeconomics, with emphasis on their application to actual situations and their use in problem solving and focus on theory of choice. Extensive use of differential calculus. Letter grading.

M204A-M204B-M204C. Seminars: Pharmaceutical Economics and Policy. (1–1–2) (Same as Economics M204L-M204M-M204N.) Seminar, three hours every other week. Enforced requisites: Microeconomics 20, 20B, 20C. Analysis of economics, economic and cultural issues that lead to disparities in access, quality, and cost of healthcare services that lead to vulnerability for particular population groups. Introduction to strategies that have been adopted to address these health disparities. Analysis and development of policy and management options that serve needs of vulnerable populations within health system. Letter grading.

M205. Pharmaceutical Policy. (4) Lecture, three hours. Policy issues pertaining to pharmaceutical sector. Topics include determinants of expenditures on drugs, price setting in industry, health insurance coverage for pharmaceuticals, and research and development process. Letter grading.

M206. Healthcare for Vulnerable Populations. (4) Lecture, three hours. Issues associated with organization, financing, and delivery of healthcare services to vulnerable populations within domestic and international contexts to gain understanding of economic, social, political, and cultural issues that lead to disparities in access, quality, and cost of healthcare services that lead to vulnerability for particular population groups. Introduction to strategies that have been adopted to address these health disparities. Analysis and development of policy and management options that serve needs of vulnerable populations within health system. Letter grading.

214. Measurement of Effectiveness and Outcomes of Health Care. (4) Lecture, three hours. Requisites: courses 200A, 200B, M422. Historical perspective for development of health status measures and their utilization in assessment of outcomes and effectiveness in medical care, including computer-based economic and cultural issues that lead to disparities in access, quality, and cost of healthcare services that lead to vulnerability for particular population groups. Introduction to strategies that have been adopted to address these health disparities. Analysis and development of policy and management options that serve needs of vulnerable populations within health system. Letter grading.

215A. Healthcare Quality and Performance Management. (4) Lecture, four hours. Management and operations of individual units and organizations of American healthcare system. Exploration of ways in which they actually function and how to ensure their quality and effectiveness. Examination of roles, activities, and daily challenges of managers and how these challenges can best be met on day-to-day basis. Emphasis on applied practice with intent being improvement of student managerial competencies and on development of skills to manage operational processes in delivery of health services, primarily directed to improving effectiveness, efficiency, performance, and quality of healthcare services. (Q) Techniques such as performance measurement, rapid cycle testing, breakthrough series, and interorganizational collaboration benefit quality and productivity. Letter grading.

215B. Applied Methods for Improvement/Implementation Science. (4) Lecture, four hours. Planning and management of improvement programs in current work of student and future roles as change agents and leaders of healthcare systems. Training in skills and analytic methods for applying improvement science in clinic settings and health systems. Completion of improvement projects demonstrating competence in improvement science. Emphasis on case studies and applications so students gain skills in improvement project design and implementation. Analysis of improvement projects, topics, and class discussions to allow students to apply this knowledge to organizational examples. Letter grading.


217. Evidence-Based Medicine and Organizational Change. (4) Lecture, three hours. Requisites: courses 200A, 200B, M422. Designed for graduate students in public health or other health sciences disciplines. Participation of students in critical review and discussion of selected paper topics, including clinical trials, meta-analysis, small and large area variations in care, and development and implementation of clinical guidelines. Emphasis on implications for health policy. Letter grading.

221. Tobacco: Prevention, Use, and Public Policy. (4) Lecture, four hours. Designed for juniors/seniors and graduate students. Study of tobacco use and its health consequences, including interplay of historical, biological, sociocultural, political, and economic forces with knowledge, attitudes, and behavior choices of individuals. Introduction to prevention interventions, cessation, and tobacco efforts in U.S., and international trends in tobacco use. Concurrently scheduled with course C121. Letter grading.

225A-225B. Health Services Research Design. (6–8) Lecture, four hours; discussion, two hours. Development of student managerial competencies and on development of skills to manage operational processes in delivery of health services, primarily directed to improving effectiveness, efficiency, performance, and quality of healthcare services. (Q) Techniques such as performance measurement, rapid cycle testing, breakthrough series, and interorganizational collaboration benefit quality and productivity. Letter grading.

M226. Introduction to Mixed Methods Research. (4) (Same as Community Health Sciences M228.) Seminar, three hours; discussion, one hour. Limited to graduate students. Highly recommended. Courses 225A and 225B, or completion of coursework in basic research design and methods. Introduction to mixed methods research, with emphasis on its application to public health research. Equips students with skills to critique mixed method research designs and to design mixed methods research investigation for health issue of interest. Study of different mixed methods research designs commonly used in health services research, including feasibility studies, convergent parallel design, sequential mixed methods, and multistage studies. Use of combination of didactic and applied techniques. S/U or letter grading.

230A-230B. Health Economics: Low- and Middle-Income Countries’ Perspectives. (2–2) Seminar, two hours; discussion, two hours. Development of student thinking on how microeconomic theories help us understand determinants of health and behaviors of consumers and providers in health sector. Offers critical framework in evaluating efficiency of health systems in improving health of population. Economics field provides public policy tools to evaluate distributional benefits/penalties of policies such as sin taxes, and to assess extent market failures motivate role of government in providing health care. Letter grading. 

M233. Health Policy Analysis. (4) (Same as Community Health Sciences M252.) Lecture, three hours. Requisites: courses 200A, M236, M267. Conceptual...
and procedural tools for analysis of health policy, emphasizing role of analysis during various phases of life-cycle of public policy. Letter grading.

234. Health Services Organization and Management Theory. (4) Lecture, four hours, Preparation: two-division social sciences courses. Application of contemporary organization and management theory to systems that provide personal healthcare services. Environmental characteristics, missions/goals, structure, and processes of health services organizations. Letter grading.


M236. Microeconomic Theory of Health Sector. (4) (Same as Public Policy M268.) Lecture, four hours; discussion; two hours. Requisites: courses 237A, 237B, Biostatistics 200A, 200B (or 201). Designed for doctoral students. Intended to train students in basic microeconomic methods used in health services research, with focus on practical application of advanced regression models. Letter grading.

239A. Special Topics in Health Services: Introduction to Decision and Cost-Effectiveness Analysis. (4) Lecture, four hours, Requisite: courses 200A and 200B, or M233. Techniques to assess broad spectrum of medical technologies: therapeutic and diagnostic techniques, clinical practice patterns, public health interventions, and pharmaceuticals. Demonstration of how decision analysis provides basic framework for conducting various economic evaluations. Course may be repeated for credit with topic change. Letter grading.

239B. Special Topics in Health Services: Advanced Topics in Decision and Cost-Effectiveness Analysis. (4) Lecture, four hours, Requisite: course 200A and 200B, or Community Health Sciences 237A). Conduct Markov analyses, critically analyze large-scale published cost-effectiveness analyses. Compare cost-effectiveness and life expectancy gains of published CEAs to peers, and use advanced features of TreeAge software to construct and analyze CEA models, including Markov models. May be repeated for credit. Letter grading.

240. Global Health Institutions, Policies, and Systems. (4) Lecture, four hours. Introduction to global health, from health policy and management perspective. Examination of institutions, from global to local, through lenses including governance, financing, history, and agenda-setting. Discussion of major topics in global health systems, such as human resources and health IT. Through series of short assignments, students’ work culminates in final presentation that examines these many dimensions of single topic in global health. S/U or letter grading.

241. Economics of Health Policy. (4) Lecture, four hours. Preparation: course M236 or doctoral standing. Second-level health economics course, with emphasis on health policy applications, designed to provide more nuanced view of health economics than does preceding course. Includes value of quality years of life, utilization of health care, and how these characteristics result in market failure and various policy tools that can be used to deal with these failures. Because U.S. is only developed country that has national health insurance, course goes into more detail on that topic. Alternative conceptual models to traditional market one, discussion of proposed U.S. reforms, and examination of systems in selected other countries. Letter grading.

M242. Determinants of Health. (4) (Same as Community Health Sciences M252.) Lecture, three hours; discussion, one hour. Designed for graduate students. Critical analysis of models for what determines health and evidence for social, economic, environmental, genetic, health promotion and disease compromising factors. Letter grading.

243. Population Health Approach to Autism Spectrum Disorder. (4) Lecture, three hours. Focus on impact that Autism Spectrum Disorder has on individuals, families, and communities, including access to services, ongoing therapies, and adult vocational and residential placement options. Requisites: research for research and national policy. S/U or letter grading.

249. Advanced Research Topics in Health Policy and Management. (2 to 4) Seminar, to be arranged. Limited to Public Health graduate students. Seminars may be organized in special topics. Advanced study and analysis of current topics in health policy and management. Discussion of current research and literature in research specialty of faculty member teaching course. May be repeated for credit with topic change. S/U or letter grading.

249A-249Z. Special Topics in Health Services. (2 to 4 each) Hours to be arranged. Requisites for each offering announced in advance of offering by department. Advanced topics in special topics in health policy, health financing, and organization and administration of health services. Sections offered on regular basis, with topics announced in preceding term. May be repeated for credit with topic change.

M249Q. Editorial Board Apprenticeship. (2) (Same as Psychiatry M210.) Lecture, two hours. Designed for postdoctoral fellows to gain editorial experience. Participation in peer review process for academic journal, Health Psychology, with consideration of inter-face between behavioral science, health, and medicine. Reading and discussion of submissions and advising of editors on suitability for full review. S/U or letter grading.

249S. Introduction to Implementation Science. (4) Seminar, four hours, Preparation: good grasp of social science research methods. Designed to provide basic understanding of science of implementing innovations and evidence-based approaches in real-world practice settings. Includes exposure to terminology, conceptual frameworks, research designs and methods, and their appropriate applications across various practice settings and populations. Interactive class discussion and guest lectures by experts in implementation science.

M251. Project Management for Health-Care Organizations. (4) Lecture, four hours. Exploration of opportunities for using project management, change management, and process improvement techniques to enhance execution of project and improvement initiatives within health-care organizations. Letter grading.

M252. Medicare Reform. (4) (Same as Public Policy M267.) Lecture, three hours; outside study, nine hours. Designed for graduate students. Analytical and managerial skills learned earlier to be used to analyze problems with existing Medicare program and to develop specific options for reforming features of program to more effectively accommodate the unprecedented growth in baby-boom generation. Letter grading.

255. Obesity, Physical Activity, and Nutrition Seminar. (4) (Same as Community Health Sciences M234.) Seminar, three hours, outside study, one hour. Designed for graduate students. Multidisciplinary introduction to obesity at graduate level to epidemiology, physiology, and current state of preventive and therapeutic interventions for obesity in adults and children, including biological and environmental determinants. Key topics include nutrition and physical activity promotion. S/U or letter grading.

260. World Health. (4) Lecture, two hours. Designed for graduate students. Overview of world health, with emphasis on how health inequalities are produced by ideas include burden of infectious diseases, health economics, and impact of healthcare policy on healthcare delivery. Letter grading.

265. Challenges in Clinical Health Services Research. (4) Lecture, four hours. Requisites: courses 200A, 200B. Designed to prepare students for challenges involved in conducting health services research on clinical topics and populations. Topics include formulation of appropriate research questions related to the sources, mechanism of conducting field studies, identifying funding sources, writing grants, and publishing findings. S/U or letter grading.

M266A-B. Community-Based Participatory Health Research: Methods and Applications. (4 each) Lecture, one hour; discussion, one hour; fieldwork, two hours. Limited to clinical scholars fellows. Mentoring of graduate students with focus on conducting critical research in conducting research in community settings. Review of assessments, interventions, and evaluation designs for community settings and discussion of practical issues in partnering with communities. Letter grading.

M269. Healthcare Policy and Finance. (4) (Same as Public Policy M269.) Seminar, three hours; outside study, nine hours. Exploration of demand for health insurance, policies for public insurance (Medicaid and Medicare), uninsured, and health insurance reform. Examination of effects of managed care on health and costs, consumer protection movement, and rise of competitive healthcare delivery. Letter grading.

M274. Health Status and Health Behaviors of Racial and Ethnic Minority Populations. (4) (Same as Psychology M274.) Lecture, two hours; discussion, one hour. Limited to graduate students. Overview of physical and mental health disparities for status of major racial/ethnic groups in U.S. Where appropriate, discussion of international issues as well. S/U or letter grading.

280. Health Reform: Policy, Research, and Implementation Issues. (4) Seminar, three hours, Requisites: courses 200A, 200B. Limited to second-year MPH and doctoral students. Analysis of components of major federal health reform legislative initiative to determine important policy implementation issues. Application of principles of stakeholder analysis to understand how and why this legislation was constructed and how it passed Congress. Conduct of policy analyses of selected components through completion of written assignments. Examination of respective roles of federal and state government in implementing and administering various components. Identification and analysis of implementation and administrative challenges at federal and state levels and development of possible strategies for addressing those challenges.

M281. Ethical Theory and Applications in Public Health. (4) (Same as Community Health Sciences M249L.) Lecture, four hours. Requisites: courses 200A, 200B. Introduction to ethical theories and critical ethical issues pertaining to healthcare policy and healthcare management. Research, writing, and discussion on variety of topics related to health and human rights to enhance professionalism, leadership, and systems thinking and improve student sensitivity to needs of patients, coworkers, and fiduciary shareholders. How ethics are foundation of leadership. Letter grading.

286. American Political Institutions and Health Policy. (4) Lecture, three hours; discussion, one hour. To effectively participate in policy process as analyst, policy maker, advocate, or citizen, it is necessary to understand institutional and political context within which policy is made. Introduction to federal and state policy-making, with focus on health policy. Discussion of federalism and constitutionalism. Examination of stakeholders, public, interest groups, and nature of institutional space for health policy. Discussion of political institutions at federal level, Congress, President, executive agencies, courts, and administrative law. State responsibilities and federal/state relations. Health policy enters into examination of roles of federal agencies and private research and advocacy groups. Letter grading.

M287. Politics of Health Policy. (4) (Same as Community Health Sciences M287.) Lecture, three hours; discussion, one hour. Requisites: courses 200A and 200B, or Community Health Sciences 210. Examination of politics of health policy process, including ef-
and evaluation of principles, policies, programs, and practices that have evolved to identify, assess, and meet special needs of infants, children, and adolescents with developmental disabilities or chronic illness and their families. Letter grading.


423. Advanced Evaluation Theory and Methods for Health Services. (4) Lecture, four hours. Designed for departmental and community with current theoretical concepts in evaluation to gain skills in integrating theory into program implementation and evaluation design. Development of student ability to apply various evaluation methodologies most appropriate to variety of settings both within and outside health care and public health, and consideration of advantages and disadvantages of potential design. Examination of shift in field of evaluation over past decade from principal focus on program efficacy (i.e., internal validity) to more balanced approach considering efficacy in content of feasibility, reach, cost, and sustainability (i.e., external validity). Introduction to conceptualizing and writing fundable research proposals. How review process—culture, structure, procedures, timetables, and outcomes—operates in different settings. Application of grant writing principles and skills to develop research proposals following National Institutes of Health guidelines. S/U or letter grading.


M426. Child and Family Advocacy Program Community Leadership Seminar. (2) (Same as Community Health Sciences M426Z.) Seminar, two hours. Designed for graduate students. Examination of characteristics of community-based organizations (CBOs) and role of leadership in decision-making process involved in major issues facing maternal and child health in Los Angeles County. Focus on specific leadership competencies that are or should be employed by organizations effective in shaping maternal and child health programs and policies (or any population-level policies and programs). Leaders from CBOs in Los Angeles meet with students on practical experiences, and underscore community leadership concepts demonstrated by those CBOs. S/U or letter grading.

430. Healthcare Informatics and E-Health. (4) Lecture, four hours. Introduction to new technologies in healthcare e-commerce/Internet/new media area, with emphasis on general background, review of applications, and discussion of organizational and managerial issues dealing with successful use and implementation of technologies. S/U or letter grading.

431. Organizational Behavior and Human Resource s in Healthcare Organizations. (4) Lecture, four hours. Managerial skills and behaviors applied to concepts of organizational behavior at seven levels: individual, interpersonal, group, intergroup, and system. Core human resources skills required by managers. Unique features of health services organizations stressed in applications are presented. Letter grading.

432. Management of Healthcare Delivery Organizations. (4) Seminar, four hours. Preparation: summer internship, work experience in health services. Readings, case analyses, and discussions related to operations, performance management, and service quality of healthcare delivery institutions. S/U or letter grading.


M434. Building Advocacy Skills: Reproductive Health Focus. (4) (Same as Community Health Sciences M430.) Seminar, three hours. Recommended requisites: courses 251, Community Health Sciences 247 or Health Policy 235. Designed for School of Public Health graduate and doctoral students. Skills-building course to develop competencies in future, developing, and implementing advocacy strategies for reproductive health initiatives. Introduction to legislative and community advocacy initiatives and to policymaking process, including planning and implementation design, and role of non- governmental organizations and other advocacy components. Identities of advocacy goals and objectives, development of advocacy plans for community health, organizational capacity building, media relations, and message development for various audiences. Students learn about range of former and current reproductive health advocacy campaigns. Letter grading.

435. Innovations and Current Trends in Ambulatory Care. (4) Lecture, four hours. Requisites: courses 234, 403. Designed to prepare students for financial management responsibilities in health care. Practical approach for understanding, analyzing, and making recommendations regarding fiscal issues facing health care organizations. Topics include revenue capture and cost classifications, break-even analysis under diverse payer scenarios, financial statement analytics, operational and capital budgeting, variance analysis, forecasting and pro forma, sensitivity analysis, FTE calculations, and utilization of financial dashboards. S/U or letter grading.


438. Issues and Problems of Local Health Administration. (4) Lecture, three hours. Preparation: one health administration course. Recent trends in Epidemiology 100. Overview of descriptive issues currently faced by local health departments, including providing public health programs during fiscal constraint, quality improvement, interagency relationships and partnerships, and political and public interactions. Letter grading.

439. Data Software for Public Health Professionals. (2) Lecture, two hours; activity, one hour. Development of statistical software for public health professionals (e.g., Excel), including use of formulas and functions, formatting and manipulating datasets, developing visualizations including charts and tables, using lookup and data-base functions, and implementing basic analytic methods. Letter grading.

440. Healthcare Information Systems and Technology. (4) Lecture, four hours. Preparation: compliments major instructional unit in health information technology (HIT) for those working in healthcare, with emphasis on development of knowledge and skill to plan, manage, and implement systems in health HIT, including interactions with clinical and business partners and evolving HIT spaces. Background and evolution of HIT; how it is planned, implemented, and managed; and how it can be broadly useful by health agency/organizations, external research organizations, regulatory organizations, providers, and patients/consumers. Fundamentals of technology, electronic medical records
599. Doctoral Dissertation Research. (2 to 12) Tutorial, to be arranged. May not be applied toward any degree course requirements. May be repeated for credit. S/U grading.

HISTORY

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Valerie J. Matsumoto, PhD (George and Sakaye Aratani Professor of Japanese American Incarceration, Redress, and Community)
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Geoffrey Robinson, PhD
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Brenda Stevenson, PhD (Nickoll Family Endowed Professor of History)
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R. Bin Wong, PhD
David K. Yoo, PhD

Professors Emeriti
Edward A. Alpern, PhD
Francis R. Anderson, BA
Ivan T. Berend, PhD
Kathryn Bernhardt, PhD
Ruth H. Bloch, PhD
Robert P. Brenner, PhD
Giorgio Buccellati, PhD
Mortimer H. Chambers, Jr., PhD
Claus-Peter Claesen, PhD
Robert Dallek, PhD
Ellen C. DuBois, PhD
John Duncan, PhD
Christopher Ehret, PhD
Benjamin A. Elman, PhD
Robert G. Frank, Jr., PhD
Saul P. Friedlander, PhD (1939 Club Professor Emeritus)
Frank O. Galatell, PhD
Patrick Geary, PhD
J. Arch Getty, PhD
Carlo Ginzburg, Laurea in lettere (Franklin D. Murphy Professor Emeritus of Italian Renaissance Studies)
Juan Gómez-Qutihones, PhD
Robert A. Hill, MSc
Thomas S. Hines, PhD
Richard G. Hovannisian, PhD (Armenian Educational Foundation Professor Emeritus of Modern Armenian History)
David W. Hollis, PhD
Philip C. Salmon, PhD
Lynn A. Hunt, PhD (Eugen Weber Professor Emerita of Modern European History)
Margaret C. Jacob, PhD
Russell Jacoby, PhD
Nikki Keddie, PhD
Barbara Krekë, PhD
Naomi R. Lamoreaux, PhD
John H. Laslett, DPhil
Peter J. Loewenberg, PhD
Afaf Marzouk, DPhil
Lauro R. Martins, PhD
Ronald J. Mellor, PhD
Michael G. Morony, PhD
Gary B. Nash, PhD
Fred G. Nottebohm, PhD
Patricia O’Brien, PhD
Herman Ooms, PhD
Merrick Posansky, PhD
Richard H. Price, PhD
Teddio F. Ruiz, PhD (Robert and Dorothy Wellman Professor Emeritus of Medieval History)
David Sabean, PhD (Henry J. Bruman Professor Emeritus of Greek History)
Michael Salmon, PhD
Geoffrey W. Symcox, PhD
Mary Terrall, PhD
Albion M. Urdang, PhD
Joan Wacquant, PhD
Richard Weiss, PhD
James W. Willeke, PhD
Matthew Norton Wise, PhD
Robert A. Wolh, PhD
William H. Worger, PhD
Mary A. Yeager, PhD

Associate Professors
Scot D. Brown, PhD
Robin L.H. Derby, PhD
Aisha K. Finch, PhD
Stephen P. Frank, PhD
Jessica L. Goldberg, PhD
Andrea S. Goldman, PhD
Katsuya Hirano, PhD
Peter J. Hudson, PhD
Ghislaine E. Lydon, PhD
Benjamin L. Madley, PhD
Katherine M. Marino, PhD
William Marotti, PhD
Muriel C. McClendon, PhD
Minayo A. Nasiali, PhD
Kathryn Norberg, PhD
Craig B. Yirush, PhD

Assistant Professors
Miloš Jovanović, PhD
Kevin Y. Kim, PhD
Kyle T. Mays, PhD
Fernando Pérez-Montesinos, PhD
Scope and Objectives

History is the study of the past of our own society and how it emerged out of the traditions that produced it. At the same time, self-knowledge for students of history comes not only from self-discovery, but from a comparison of their own tradition and experience with those of others. It is only by studying the history of other civilizations and cultures that we can hope to gain perspective on our own.

The course offerings in the Department of History are designed to bring about an understanding of the forces that have shaped the many cultures of this country and the world. UCLA has one of the largest, most distinguished, and most diverse history faculties in the country. Its main emphasis is on the many aspects of social history; but intellectual, cultural, and political history are also strongly represented.

Of all undergraduate majors, History is probably the most flexible and far-reaching. Leading to a Bachelor of Arts degree, it is excellent preparation for a wide variety of careers—law, teaching, business, the communications media, public services, and medicine.

The graduate program leads to the PhD degree in History (a master’s degree may be earned in the process of completing PhD requirements). Traditionally, the MA and PhD in History have led to careers in high school, college, and university teaching. Increasingly, they are also being put to use in government service, international business, museum and archival work, and journalism.

Undergraduate Study

The History major is a designated capstone major. Undergraduate students take a capstone seminar in which they demonstrate mastery of a specialized area of history and a critical understanding of current scholarly concerns, literature, and debate, then design and complete a research project using those primary sources and literature.

History BA

Capstone Major

The History Department undergraduate program consists of 16 courses in history (six lower-division—the preparation for the major, including the premajors' requirements; 10 upper-division—the major). Each course must be taken for a letter grade.

Learning Outcomes

The History major has the following learning outcomes:

- Demonstrated appropriate mastery of a specialized area of history
- Demonstrated critical understanding of current scholarly concerns, literature, and debate
- Identification and analysis of primary sources
- Design and execution of a research project, drawing on primary sources and appropriate scholarly literature
- Demonstrated ability to organize and present a brief oral presentation about research

Premajor

While students are completing the lower-division preparation for the major courses, they may be classified as History premajors.

After completing the six courses with a minimum grade-point average of 2.0, students should petition to enter the major in one of the undergraduate counseling offices, 6284 or 6290 Bunche Hall.

Preparation for the Major

Required: Six lower-division courses history courses as follows: two history survey courses selected from History 1A, 1B, 1C, 2B, 2C, 3A, 3B, 3C, 3D, M4, 5, 8A, 8B, 9A, 9C, 9D, 9E, M10A, 10B, 11A, 11B, 12A, 12B, 12C, 13A, 13B, 13C, 14, 20, 21, or 22; one course selected from History 94, 96W, or 97A through 97O; three additional lower-division history courses (except History 19, 89, 89HC, 99).

Transfer Students

Transfer applicants to the History major with 90 or more units must complete the following introductory courses prior to admission to UCLA: one semester or two quarters of history of Western civilization or world history, one historical practice course, and three additional lower-division history courses.

Transfer credit for the premajor courses is subject to department approval. Transfer students should consult with the undergraduate counselors before enrolling in any courses for the major.

Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

The Major

Required: At least 10 upper-division history courses, including (1) two courses in U.S. history, (2) two courses in non-Western history from the same area (i.e., Latin America, Asia, Near East, Africa), (3) two courses in European history or in history of science, (4) one course from 187A through 187R, and (5) one capstone seminar from the History 191 series.

The requirements for U.S., non-Western, and European history may be fulfilled with either upper or lower-division courses, but majors are required to take a minimum of 10 upper-division history courses.


There is no language requirement for the major; however, students wishing to enter the honors program or planning to do graduate work in history are urged to pursue language study early in their undergraduate careers.

Advanced Placement Credit in History

Effective fall quarter 2002 for entering freshmen, no course credit is granted for any AP examination.

Honors Program

The honors program is designed for History majors who are interested in completing a year-long research project that culminates in an honors thesis. A 3.5 departmental grade-point average is required for admission. To graduate with departmental honors, students must have a cumulative or overall GPA of at least 3.0 in all University-level coursework and at least a 3.5 GPA in all coursework required for the major.

The honors thesis must be completed in three terms, on the basis of work carried out in History 198A, 198B, and 198C. Students must register their intention to undertake an honors thesis with the undergraduate affairs vice chair no later than spring quarter of their junior year.

When students register for honors, they must provide the undergraduate affairs vice chair with a two-paragraph description of their thesis project, which must be approved in writing by the faculty member who agrees to act as their adviser. The undergraduate affairs vice chair must also approve the proposed project in writing.

The faculty adviser is primarily responsible for guiding the thesis work to its completion and assigning grades for the honors courses after the thesis is complete. The honors thesis should be 40 to 60 pages in length and be based on primary source material. Determination of the level of honors awarded (no honors, honors, or highest honors) is made by the undergraduate affairs vice chair, acting in conjunction with the honors committee, at the end of the term in which the thesis is completed.

History Minor

The History minor introduces students to historical processes and institutions.

To enter the minor, students must have an overall grade-point average of 2.0 or better and file a petition in the Undergraduate office, 6284 Bunche Hall.

Required Lower-Division Courses (10 units): Any two lower-division history courses.

Required Upper-Division Courses (20 units): Any five upper-division history courses. At least three of the five courses must be taken in residence at UCLA.

A maximum of 4 units of special studies courses (199) approved by the adviser and a maximum of 4 units of capstone seminars (191) may be applied toward the minor.
A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor. Each minor course must be taken for a letter grade, and students must have an overall grade-point average of 2.0 or better in the minor. Successful completion of the minor is indicated on the transcript and diploma.

History of Science, Technology, and Medicine Minor

The History of Science, Technology, and Medicine minor takes as its subject matter the ideas, practices, and people concerned with the knowledge of the natural and social world. Using the tools of historical analysis, it explores the development, significance, and impact of science, technology, and medicine around the world. The goal of the minor is to give undergraduates majoring in fields other than science, technology, and medicine content that may be applied toward the upper-division course requirements. Honors collegium courses with significant history of engagement in the upper-division course require approval by department adviser; or an honors collegium seminar with a required research paper. Students will learn to think critically and write analytically about these subjects.

To enter the minor, students must be in good academic standing (2.0 grade-point average), have completed 45 units and at least one lower-division course in the history of science or medicine for a letter grade, and file a petition with an adviser in the History Department undergraduate counseling offices, 6284 or 6290 Bunche Hall. Students must take seven classes to satisfy the requirements for the minor. The lower-division requirement is designed to give the student a broad understanding (in time and space) of the historical development of science, technology, and medicine. The upper-division requirement allows students to choose from an array of more focused classes.

Required Lower-Division Courses (10 units): Two courses from History 28, 3A through 3D.


Students are required to write at least one research paper on a topic in history of science, technology, or medicine. To this end, they must take at least one of the following: History 191 (capstone research seminar); History 199 (individual independent study approved by department adviser); or an honors collegium seminar with a required research paper.

History 191 and 199 may be applied only once toward the minor.

Honors collegium courses with significant history of science, technology, and medicine content may be applied toward the upper-division course requirement for the minor.

One upper-division course outside the department may be counted toward the minor, with approval of the history of science field coordinator. The course must address social, historical, and philosophical aspects of science, technology, and medicine.

Graduate Study

Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Division website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Graduate Degrees

The Department of History offers Master of Arts (MA), Candidate in Philosophy (CPhil), and Doctor of Philosophy (PhD) degrees in History.

History

Lower-Division Courses

1A. Introduction to Western Civilization: Ancient Civilizations, Prehistory to circa AD 843. (5) Lecture, three hours; discussion, one hour. Survey of diverse cultures that shaped foundation of Western civilization to onset of 9th century AD. Examination of first civilizations in Near East and Egypt. Analysis of ideas of Greeks and Romans. Examination of ways in which western European societies created new syntheses through selective appropriation of Greek and Roman cultures and introduction of new cultural forms. P/NP or letter grading.

1AH. Introduction to Western Civilization: Ancient Civilizations, Prehistory to circa AD 843 (Honors). (5) Lecture, three hours; discussion, two hours. Honors sequence parallel to course 1A. P/NP or letter grading.

1B. Introduction to Western Civilization: Circa 843 to circa 1715. (5) Lecture, three hours; discussion, one hour. Introduction to history of the West and its connections to rest of world from 843 to 1715. Profound social, political, cultural, and intellectual changes that affected development of modern world. Topics covered include economic, social, and cultural aspects of feudal system; relationship between Church and empire; new religious movements (including the Reformation); formation of nation-states; relationship between Western Europe and non-European and non-Christian people and traditions. P/NP or letter grading.

1BH. Introduction to Western Civilization: Circa AD 843 to circa 1715 (Honors). (5) Lecture, three hours; discussion, two hours. Honors sequence parallel to course 1B. P/NP or letter grading.

1C. Introduction to Western Civilization: Circa 1715 to Present. (5) Lecture, three hours; discussion, one hour. Introduction to history of the West and its connection to rest of world after 1715, during period of sweeping political, social, and cultural tensions and transformations. Topics covered include industrialization, rise of nationalism and mass politics, revolutionary movements, urbanization, mass global migrations, European expansion and imperialism, and decolonization, leading to emergence of new nation states in Europe’s former colonies. P/NP or letter grading.

1CH. Introduction to Western Civilization: Circa 1715 to Present (Honors). (5) Lecture, three hours; discussion, two hours. Honors sequence parallel to course 1C. P/NP or letter grading.

2B. Social Knowledge and Social Power. (5) Lecture, three hours; discussion, two hours. History of social knowledge and social power in the 19th and 20th centuries. Everyday ideas and practices about human nature, common sense, and community and relation of these practices to social thought, social engineering, and social science. Themes include development of social knowledge through public activities and discourses; how social knowledge differs in agrarian, mercantile, industrial, and information-based political economies; and how social science addresses these issues. P/NP or letter grading.

2C. Religion, Occult, and Science: Mystics, Heretics, and Witches in Western Tradition, 1000 to 1600. (5) Lecture, three hours; discussion, two hours. Specific aspects of elite and popular culture in medieval and early modern Europe. Manner in which men and women sought to explain, order, and escape fears of their lives by embracing transcendental religious experiences and dreaming of apocalypse and witchcraft. Examination of experiences in context of genesis of the state, birth of a new science, and economic and social change. P/NP or letter grading.

3A-3B-3C. History of Science, (5–5–5) Lecture, three hours; discussion, two hours. History majors may not apply these courses on science general education requirements. P/NP or letter grading.

3A. History of Science. (5) Lecture, three hours; discussion, two hours. Thorough study of history of science as an intellectual discipline. History of science is the study of the ways in which science has developed in different cultural contexts. A focus on major historical events and developments helps to provide a basis for understanding the present state of knowledge and technology. P/NP or letter grading.

3B. Social Knowledge and Social Power. (5) Lecture, three hours; discussion, two hours. Historical contexts. Development of student skills in critical thinking, analyzing documents, and making persuasive arguments based on historical evidence. P/NP or letter grading.

3C. Religion, Occult, and Science: Mystics, Heretics, and Witches in Western Tradition, 1000 to 1600. (5) Lecture, three hours; discussion, two hours. Specific aspects of elite and popular culture in medieval and early modern Europe. Manner in which men and women sought to explain, order, and escape fears of their lives by embracing transcendental religious experiences and dreaming of apocalypse and witchcraft. Examination of experiences in context of genesis of the state, birth of a new science, and economic and social change. P/NP or letter grading.

5. Holocaust: History and Memory. (5) Lecture, three hours; discussion, two hours. Holocaust of six million Jews by Germans in Nazi-occupied Europe during World War II, is one of crucial events of modern history. Examination of origins of Holocaust, perpetrators and victims, and changing efforts to come to terms with this genocide. Exploration of forces that led to Holocaust, including emergence of scientific racism, anti-Semitism, and machinery of destruction. P/NP or letter grading.

History / 471
8A. Colonial Latin America. (5) Lecture, three hours; discussion, two hours. General introduction to Latin American history from contact period to independence (1490s to 1820s), with emphasis on convergence of Native American, European, and African cultures in Latin America. Formation of national identity, cultural development of colonial institutions and societies; and emergence of local and national identities. Readings focus on writings of Latin American men and women from the popular and literate letter writing traditions.

8AH. Colonial Latin America (Honors). (5) Lecture, three hours; discussion, two hours. Honors course parallel to course 8A, P/NP or letter grading.

8B. Modern Latin America. (5) Lecture, three hours; discussion, two hours. Historical and contemporary perspectives of Latin America, with special emphasis on political, cultural, and economic history of Latin America after independence, region that includes Mexico, Central and South America, and Caribbean. Formation of independent nation states and political regimes and their development.

8CH. Latin American Social History. (5) Lecture, three hours; discussion, two hours. Historical and contemporary perspectives of Latin America, with special emphasis on political, cultural, and economic history of Latin America after independence, region that includes Mexico, Central and South America, and Caribbean. Formation of independent nation states and political regimes and their development.

10B. Introduction to Civilizations of Africa (Honors). Lecture, three hours; discussion, one hour. Strongly recommended for History majors planning to take more advanced courses. Limitation: 20 students. Designed as adjunct to lower-division lecture course. Exploration of topics in greater depth through supplemental readings, papers, or seminar lecture course. Exploration of key connections, interactions, and circuits that gave rise to later nation states. In reconsidering how past is studied, highlights key connections, interactions, and circuits that gave rise to later modern world. P/NP or letter grading.

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. History of ideas and history of topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

20. World History, circa 600 to 1760. (5) Lecture, three hours; discussion, two hours. Examination of early civilizations of Asia, North and Europe—Mesopotamia, Egypt, Israel, India, China, Greece, and Rome— from development of settled agricultural communities until about AD 500, with focus on rise of cities, organization of society, nature of kingship, writing and growth of bureaucracy, varieties of religious expression, and linkage between culture and society. P/NP or letter grading.

21. World History, circa 600 to 1760. (5) Lecture, three hours; discussion, two hours. Outline of world history from rise of Islam to start of Industrial Revolution. Explored are arborescent structures of interaction and competition among diverse and often alien cultures. Focus on how cultural and social forces fostered development of the world system and shaped political, economic, and social institutions. Global and transnational history from earliest times to late 18th century. Emphasis on development of world as a single integrated region, one that gave rise to later nation states, empires, and world systems."
98. What is History? An Introduction to Historical Thinking and Practice. (4) Lecture, two hours; discussion, two hours. What is history? What is the role of the historian? How can history be useful in addressing contemporary questions? This course introduces students to the discipline of history and its intellectual processes by which history is written, results of these processes, and sources of development of history. Attention also to representative historians. P/NP or letter grading.

101. Topics in World History. (4) Lecture, three hours; discussion, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Examination of specific historical themes from world historical perspective. May be repeated for credit with different topics. P/NP or letter grading.

102A. Iran and Persianate World. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Development of model of Persianate world, to include together histories of Iran, India, and central Asia (including Afghanistan) between circa 1200 and 2000. Movement and interaction of different peoples between major cultural centers where Persian was used as common language of intellectual, religious, social, and political exchange. Weekly focus on one particular theme, with lecture material supplemented by translations of writings of princes, poets, tribesmen, travelers, and mystics who created Persian republic of letters between Shiraz, Samarkand, and Delhi, and even as far as Siberia and China. (Mazdism, Manicheism, Exilarchate, Church of Persia, Judaism, Islam, Zoroastrianism, and Buddhism.) P/NP or letter grading.

103. World History. (4) Lecture, three hours; discussion, one hour (when scheduled). Survey of political, economic, social, and cultural history of Cauca- casus region since 1801. Georgian, Armenian, and Azerbaijani language and literature, Russian and related culture, national identity question and Soviet national republics. P/NP or letter grading.

104. History of the Middle East. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Survey of political, social, economic, and religious history of Islamic West (Maghrib) from Muslim conquest in 630s and 7th centuries CE until 750. P/NP or letter grading.

108B. History of Islamic Iberia. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Survey of political, social, economic, religious, artistic, and literary history of Islamic culture in Western Europe. P/NP or letter grading.


109B. History of the Palestine-Israeli Conflict, 1861 to Present. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Examination of origins of Arab-Israeli dispute from mid-19th century through four phases of state of Israel and expulsion or flight of three quarters of million Palestinian refugees from their homes. Exploration of social history of Palestine up to Zionist colonization, origins of Zio- nism and Palestinian nationalities, varieties of Zio- nism and Palestinian politics, and humanitarian and resultant compassionate connotations Great Revolt and 1948 nakba (disaster), construction of national boundaries in Israel, 1967 and its aftermath, intifada, and redefinition of conflict as result of Oslo. P/NP or letter grading.

M110A-M110B-M110C. Iran, 100 CE to 1700. (4-4-4) Same as Ancient Near East M110A-M110B-M110C and Modern History M110A-M110B-M110C. Three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Survey of political, economic, social, and cultural history of Iran, 100 CE to 1700. Topics vary each semester. P/NP or letter grading.

M110D-History of Achaemenid Empire. (4) Designed for juniors/seniors. Survey of political history, state structure, empire's religions, interactions with Hellenistic and Roman worlds. Further accent on Persian conquest of Iran and Mesopotamia, Seleucid demise and Ar- sacid hegemony in East, Arsacid-Roman wars, sustaining of Sassanian Empire, and the Empire—From Ardashir I to Riza of Persepolis (circa 224–459 CE) From fall of Arsacids to Muslim conquest of Iran. Emphasis on political history, state structure, empire's religions, and Greco-Persian interactions. Further accents on Cyrus' empire and Darius' world order, age of Persian Wars, Cyrus the Younger, Achaemenid Empire, Alexander's conquest. M110B. History of Arsacid (Parthian) Empire. From Hellenistic rule in Persia to Sassanian con- quest. Emphasis on political history, state structure, empire's religions, interactions with Hellenistic and Roman worlds. Further accent on Parthian conquest of Iran and Mesopotamia, Seleucid demise and Ar- sacid hegemony in East, Arsacid-Roman wars, sustaining of Sassanian Empire —From Ardashir I to Riza of Persepolis (circa 224–459 CE) From fall of Arsacids to Muslim conquest of Iran. Emphasis on political and economic history, evolution of state structure, state, religion, and culture in the Middle East - (Mazdism, Manicheism, Exilarchate, Church of Persia, Mazdakism), Persian and Roman/Byzantine interac- tions, Persia and East. Further accent on Persian-Roman conflicts and their impact, Persia and Huns. 111A-111B-111C. Topics in Middle Eastern History. (4-4-4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. May be repeated for maximum of 16 units with topic and/or instructor change. P/NP or letter grading.

114B. History of Islamic Iberia. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Survey of political, social, economic, religious, artistic, and literary history of Islamic culture in Western Europe. P/NP or letter grading.

116B. History of Islamic Iberia. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Survey of political, social, economic, religious, artistic, and literary history of Islamic culture in Western Europe. P/NP or letter grading.

118B. History of Islamic Iberia. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Survey of political, social, economic, religious, artistic, and literary history of Islamic culture in Western Europe. P/NP or letter grading.


96W. Introduction to Historical Practice. (5) Seminar, three hours. Requisite: English Composition 3, Introduction to study of history, with emphasis on historical theory and research methods. Satisfies Writing II requirement. Letter grading.

97. Historical Practices Adjunct Seminar. (1) Seminar, one hour. Corequisite: any course from History 97A through 97O. Limited to History majors. Exploration of topics covered in courses 97A through 97O in greater depth through supplemental readings, discussions, or other activities. P/NP grading.


99. Student Research Program. (1 to 2) Tutorial (supervised research or other scholarly work), three hours per week per unit. Entry-level research for lower-division students under guidance of faculty mentor. Students must be in good academic standing and enrolled in a minimum of 12 units (excluding this course). Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP grading.

Upper-Division Courses
112A-112B. History of Ancient Mediterranean World. (4-4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. P/NP or letter grading. 112A. Survey of history of ancient East from earliest times to foundation of Persian Empire. 112B. History and institutions of Greeks from their arrival to death of Alexander.

112C. History of Ancient Mediterranean World. (4) Same as Classics M114A. Lecture, five hours. Intensive on-site study of history and culture of ancient Rome from founding of city to conversion of Christianity. Part of UCLA Summer Travel Program. P/NP or letter grading.

112D. History and Monuments of Ancient Greece: Field Studies. (4) Fieldwork, three hours. Enforced corequisite: course 112B. Examination of art, architecture, and monuments of ancient Greece through daily lectures and field walks to museums and archaeological sites. Part of UCLA Summer Travel Program. P/NP or letter grading.

112E. History and Monuments of Rome: Field Studies. (4) Same as Classics M114B. Fieldwork, five hours. Enforced corequisite: course M112C. Examination of art, history, and monuments of ancient Rome through daily lectures and field walks to museums and archaeological sites. Part of UCLA Summer Travel Program. P/NP or letter grading.

113A-113B. History of Ancient Greece. (4-4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. P/NP or letter grading. 113A. Rise of Greek City-State. Emphasis on archaic period and early classical age through Persian Wars. 113B. Classical Period. Clash between Athens and Sparta, consequent rise of Macedonia, and aftermath of Alexander the Great.

M113C. Ancient Historiography: Theory and Practice. (4) Same as Classics M133C. Lecture, three hours. Study of Classical Greek, Roman, and Byzantine writing in history and survival of Western culture. Part of UCLA Summer Travel Program. P/NP or letter grading.

114A-114B. History of Rome. (4-4-4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. P/NP or letter grading. 114A. To Death of Caesar. Emphasis on development of republicanism and on constitutional and social struggles of late republic. 114B. From Death of Caesar to Time of Constantine. Early empire treated in more detail, supplemented by survey of social and economic history. 114C. Transformation of Classical World. Political, cultural, and religious history of Mediterranean in late antiquity, from crisis of Roman Empire in 3rd century to barbarian and Arab invasions and beginning of medieval states and societies in 7th century.

115. Topics in Ancient History. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for seniors. Introduction to topics in Greek and Roman history. Includes complex historical paradigms and methodological tools for studying the ancient world from different perspectives.


116C. Power and Imagination in Byzantium. (4) Same as Classics M170C. Lecture, three hours; discussion, one hour (when scheduled). Designed for seniors. Renaissance of Empire. Study of relations of authority and intelligentsia in highly centralized Byzantine Empire. Topics include criticism of emperor, iconoclasm, intellectual freedom, attempt to recover Empire. P/NP or letter grading.

119A-119B. Medieval Europe. (4-4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Basic introduction to Western Europe from late Antiquity to 19th Century. Development of methodology, with emphasis on medieval use of Greco-Roman antiquity, history of manuscript book, and growth of literacy. P/NP or letter grading. 119A. 1000 to 1000. 119B. 1000 to 1500.

119C. Medieval Civilization: Mediterranean Lands. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for seniors. Survey of Western Mediterranean Europe, social/economic history, rural political framework, with its relation with other cultures. P/NP or letter grading.

119D. Topics in Medieval History. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for seniors. Special topics in history of Middle Ages, including society, justice and law, politics of war and diplomacy, economic upheaval and renewal, and cultural representations. May be repeated for maximum of 16 units with topic and/or instructor change. P/NP or letter grading.

120A-120B. East-Central Europe. (4-4) Lecture, three hours; discussion, one hour (when scheduled). Designed for seniors. P/NP or letter grading. 120A. Long 19th Century, 1780 to 1914. Analysis and interpretation of storny history of crisis zone of Europe where wars, revolutions and different types of extremism led to historical deconstruction: 70 years of departure from Western values and at last effort to turn back to them.

120C. East-Central Europe in Transition, 1988 to 1993. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for seniors. P/NP or letter grading. 120D. Film and History: Central and Eastern Europe, 1945 to 1989. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for seniors. Postwar history of central and eastern Europe (1945 to 1989), using eight Czech, Polish, and Hungarian films to explore life under state socialist modernization dictatorship. P/NP or letter grading.

121A-121F. History of Modern Europe. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for seniors. P/NP or letter grading. 121A. Renaissance and Reformation, 1450 to 1660. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for seniors. Reorganization of power, new forms of representation, and discussion about rule and obedience in Europe from mid-15th through 16th century; popular culture, peasants society, cultural and religious influence, life of religion and power, localization. P/NP or letter grading.

121B. Baroque Culture and Absolutist Politics, 1600 to 1715. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for seniors. Changing nature of state and social domination; redeployment of military violence; strategies of population discipline; absolutism and baroque culture; new forms of bureaucratic intervention; representation of family, sexuality, and body; witch persecutions. P/NP or letter grading.

121C. Old Regime and Revolutionary Era, 1715 to 1815. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for seniors. Enlarged state, nationalism, challenge of new political and economic ideas, crisis of Old Regime, impact of French Revolution and Napoleonic empire. P/NP or letter grading.

121D. Bourgeois Century, 1815 to 1914. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for seniors. Restoration politics, Industrial Revolution, uprisings of 1848, unification of Germany and Italy, imperialism, rise of socialism. Employment growth, changes in social structure, origins of World War I. P/NP or letter grading.

121E. Era of Total War, 1914 to 1945. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for seniors. World War I, interwar period, and World War II. Social, cultural, political, and economic aspects, with focus on strain between model of parliamentary democracy and dynamics of total politics (e.g., Bolshevik Revolution, Italian Fascism, national socialism, and Spanish Civil War). P/NP or letter grading.

121F. World War II and Its Aftermath, 1939 to Present. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for seniors. World War II, origins and persistence of Cold War, reconstruction in West, de-Stalinization, decolonization, crisis of welfare state, background to and course of 1989 revolutions, economic and political configurations. P/NP or letter grading.

122A-122F. Cultural and Intellectual History of Modern Europe. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for seniors. P/NP or letter grading. 122A. 15th Century, Renaissance. Cultural and intellectual history of Europe. Central themes include comparative history of ideas, theory and practice of art and architecture, civic and religious humanism, religious experience, and new cultural genres of history and philological scholarship.


123A-123B-123C. War and Diplomacy in Europe. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for seniors. P/NP or letter grading. 123A. 1650 to 1815. Survey of military and diplomatic history, seen in relation to social and economic development, and to other areas of intellectual activity (e.g., Enlightenment).

123B. 1815 to 1945. Changing patterns of warfare and diplomatic attempts to contain Great Power rivalries; wars of national unification; imperialism; shifting balance of state power and alliances; end of Empire. Cultural and intellectual confrontations between superpowers and their allies and clients in Europe, Asia, and Latin America.


124C. Making of Modern France, 1871 to Present. From oligarchy to democratic bureaucracy in two wars and three republics.

125A. Baroque and Enlightenment Germany. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for seniors. Development of state institutions, culture, and society in Central Europe from end of Thirty Years War to end of Na-
paleoic Wars. Consideration of absolutism as political system, and baroque and Enlightenment cultures as new discourses on power and hierarchy. P/NP or letter grading.

125B. Nationalism and Modernization in 19th-Century Germany. (4) Lecture; three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Problems of class society and state formation, emancipation, assimilation, growth of national consciousness, emergence of bourgeois public sphere, dynamics of science, in civil society, and national life post-Napoleonic tensions between reform and reaction, 1848, and national unification. P/NP or letter grading.

125G. 20th-Century Germany. (4) Lecture; three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Transitions that Germany has faced during this century: two world wars, shift from monarchy to republic to federal system, demobilization and final reunification. Consideration of political, social, economic, and cultural spheres. P/NP or letter grading.

125D. History of Low Countries. (4) Lecture; three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Examination of aspects of Dutch (and on occasion Belgian) history from medieval period to period after World War II, with emphasis on political, social and cultural history. Topics include Middle Ages, Dutch Republic in 17th and 18th centuries, Low Countries from 1830 to 1918, Netherlands and Belgium in context of Europe after 1945. P/NP or letter grading.

126. Europe in Age of Revolution, circa 1775 to 1815. (4) Lecture; three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Period from revolt of Thirteen Colonies to French Revolution of 1789, and Napoleon regime, viewing social and political changes unleashed by these revolutionary movements in comparative and transnational perspective. P/NP or letter grading.

127A-127D. History of Russia. (4 each) Lecture; three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. P/NP or letter grading:

- 127A. Origins to Rise of Muscovy. (4) (Same as Russian M118.) Lecture; three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Ki- evan Russia and its culture, Appanage principalities and towns; Mongol invasion; unification of Russian state by Muscovy, Autocracy and its Servitors; serfdom. P/NP or letter grading.
- 127B. Imperial Russia from Peter the Great to Nich- ollas II. (4) Lecture; three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Westernization of state and society; centralization at home and abroad; problem of industrialization; movements of political and social protest; non-Russian peoples; political reforms and social changes; Revolution of 1905; Russia in World War I; fall of autocracy. P/NP or letter grading.
- 127C. Revolutionary Russia and Soviet Union. (4) Lecture; three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Revolutions of 1917, Civil War, consolidation of Bolshevik Regime; succession crisis and ascendancy of Stalin, collectiv- ization and industrialization; foreign policy and World War II; death of Stalin, de-Stalinization, developments since; foreign relations. P/NP or letter grading.
- 127D. Culture and Society in Imperial Russia. (4) Lecture; three hours; discussion, one hour (when scheduled). Recommended preparation: course 127B or Russian 99A or 119. Designed for juniors/seniors. Thematic examination of culture and society in Russia during era of state-sponsored Westernization (1689 to 1917). Topics include nobility, peasantry, and village life from serfdom to postemancipation era, urban so- ciety, women in thought, urban life, art, religion, popular culture, accommodation, and resis- tance. P/NP or letter grading.

128A-128B. History of Italy. (4, 4-4) Lecture; three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. P/NP or letter grading.

- 128A. 1350 to 1559. Most important social, economic, political, and cultural developments in history of Italy during later Middle Ages and Renaissance. 128B. 1559 to 1848. Counter-Reformation and absolutism, Enlightenment reforms, revolutionary era, and first phase of Risorgimento. 128C. 1848 to Present. Political, economic, social, diplomatic, and ideological de- velopments.

129A-129C. Social History of Spain and Portugal. (4-4) Lecture; three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. P/NP or letter grading.

- 129A. Age of Silver in Spain and Por- tugal, 1479 to 1798. Development of popular history in Spain and Portugal, urbanization and industrialization; gold routes, slave trade, history of women, and development of different types of collective vio- lence. Revolutionary Modern Spain and Portugal, 1789 to Present. Spain’s position in Europe and its potentialities for social change discussed through investigations of urban history, agrarian social structure, history of women, problems of slow industrial development, imperialism, anarchism, and labor history.

130. History of European Political Thought. (4) Lecture; three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Introduction to principal themes in history of European political thought from classical antiquity to close of early modern period. Study of outstanding contributions to history of social and political thought in texts of major thinkers such as Plato, Aristotle, Machi- avelli, More, Hobbes, Locke, and Rousseau. Recon- struction of broad intellectual and ideological contexts from which these thinkers and others helped students make sense of works of political philosophy in their relevant historical setting and to know something about Athe- nian democracy and its critics, Roman republic and its empire, Renaissance, early modern European civil wars, American and French Revolutions, and Enlight- enment. Focus on emergence of some crucial con- cepts during this period—ideas about state, self, rights, politics, society, economics, nature, the public, and more—that define way we think about politics and soci- ety in modern world. P/NP or letter grading.

131A-131B. Marxist Theory and History. (4-4) Lecture; three hours; discussion, one hour (when scheduled). Course 131A is generally requisite to 131B. De- signed for juniors/seniors. Introduction to Marxist philoso- phy and method; conception of historical stages; competing Marxist analyses of transition from feudalism to capitalist economy via reading Capital: theory of politics and state in relationship to historical interpretation of 19th-century European revolutions; capitalism crises. P/NP or letter grading.

132. Topics in European History. (4) Lecture; three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Integrated introduction to important aspects of European history, with emphasis on current historical context; may be repeated for maximum of 16 units with topic and/or in- structor change. P/NP or letter grading.

133A-133B. History of Women in Europe. (4) (Same as Gender Studies M133A-M133B.) Lecture; three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. History of social, polit- ical, and cultural roles of women in Western Europe from early Middle Ages to present. P/NP or letter grading.

- 133A. 800 to 1715; M133B. 1715 to Present.

133C. History of Prostitution. (4) (Same as Gender Studies M133C.) Lecture; three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. History of prostitution from ancient times to present. Topics include toleration in medieval Europe, impact of syphils, birth of courtesan, regulation in 19th-cen- tury Europe, white slavery scare, and contemporary global trade in female sex workers. May be re-peated for maximum of 16 units with topic and/or instructor change. P/NP or letter grading.

134A-134C. Economic History of Europe. (4-4) Lecture; three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. P/NP or letter grading.

- 134B. 1780 to 1914. Analysis of emergence of European world economy, first Industrial Revolu- tion, revolution in technology, economic, political, and cultural history of Britain from Hanoverian revolution in politics to advent of mass demo- cracy in mid-Victorian era. Themes include social change under pressure of industrialization, emergence of first British Empire, loss of America, shifts in re- gious and social position. 134C. Modern Britain since 1832.

137A-137B. British Empire since 1783. (4-4) Lecture; three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. British expansion and economic development of British Empire, including evolu- tion of colonial nationalism, development of commonwealth idea, and changes in British colonial policy. P/NP or letter grading.

138A. Colonial America, 1600 to 1763. (4) Lecture; three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Examination of molding of the English society in America from 1600 to 1763. Emphasis on interaction of three con- verging cultures: Western European, West African, and American Indian. P/NP or letter grading.

138B. Revolutionary America, 1760 to 1800. (4) Lecture; three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Inquiry into origins and consequences of American Revolution, nature of revolutionary process, creation of constitu- tional, national, governmental, and developmental of capi- talist economy. P/NP or letter grading.

138C. U.S. History, 1800 to 1850. (4) Lecture; three hours; discussion, one hour (when scheduled). De- signed for juniors/seniors. Discussion of major social, political, economic, and cultural transformations of
first half of 19th century and how these changes helped to drive wedge between North and South. P/NP or letter grading.

139A. U.S., Civil War and Reconstruction. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Focus on sectionalism, anti-slavery crusade; formation of Confederate States; war politics; and political reconstruction. P/NP or letter grading.

139B. U.S., 1875 to 1900. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Reconsideration of U.S. exceptionalist approach to history; thinking of crucial aspects of American history in more international context that goes well beyond foreign relations and international affairs to recontextualize aspects of American democracy, economic, political, social, intellectual, and cultural aspects of American history. P/NP or letter grading.


142A-142B. Intellectual History of U.S. (4–4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Principal ideas about humanity and God, nature and society, that have been at work in American history. Sources of these ideas, their connections with one another, their relationship to American life, and their expression in great documents of American thought. P/NP or letter grading.

142D. American Popular Culture. (4) Lecture, three hours; discussion, one hour (when scheduled). Recommended requisites: courses 13B, 13C. Designed for juniors/seniors. Survey of American cultural history since 1865, with emphasis on historical development of urban, consumer-oriented American mass culture that enveloped diverse groups of Americans as producers and consumers. Historical development of American popular culture according to changing set of political, economic, and social circumstances. Evolution of national and global framework for mass circulation of popular culture expressions, as well as arrival of new technologies that enabled that development. P/NP or letter grading.


144. America in World. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Consideration of U.S. exceptionalist approach to history; thinking of crucial aspects of American history in more international context that goes well beyond foreign relations and international affairs to recontextualize aspects of American democracy, economic, political, social, intellectual, and cultural aspects of American history. Consideration of transnational flows of people, ideas, goods, wealth, and politics, as well as comparative studies of all these things and more. P/NP or letter grading.


145A-145B. U.S. Urban History. (4–4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. P/NP or letter grading. 145A. U.S. Cities, economic, political, social, and cultural development of U.S. cities in relation to broad trends in U.S. history as well as to their own more special histories. Emphasis on modern master narrative of chronology, and awareness of major theoretical issues and fundamental concepts in urban history. 145B. Topics in U.S. Urban History. Exploration of one aspect of U.S. urban history in depth without having to attend to basic chronology or geography. Topics include crime and police, urban economics, and urban government. Students do primary research papers based on local materials. Projects, and documentary and popular media products. May be repeated for maximum of 16 units with topic and/or instructor change.

146A-146B. American Working Class Movements. (4–4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Major epiphenomenes in social, trade union, and cultural history of American working class from Colonial times to present, with emphasis on both organized and unorganized labor, history of Knights of Labor, AFL-CIO, and development of labor politics. P/NP or letter grading.

146C. Migrant Nation: How Mobility Shapes American Society, Politics, and Culture. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Major epiphenomenes in social, trade union, and cultural history of American working class from Colonial times to present, with emphasis on both organized and unorganized labor, history of Knights of Labor, AFL-CIO, and development of labor politics. P/NP or letter grading.

146D. U.S. and Comparative Immigration History. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Survey of immigration and internal migration, cultures of racial and ethnic stratification, migrant political activism, and policies that govern migration, citizenship, and exclusion in U.S. P/NP or letter grading.

147D. History of Women in Colonial British America and Early U.S., 1600 to 1860. (4) Same as Gender Studies M147B.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Use of overlapping diaspora model that integrates North Atlantic (Europe), South Atlantic (Africa-Caribbean), Pacific (China/Japan/Hawaii), and Latin (Mexico to Brazil) world histories, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Historical overview of African American experience, with emphasis on three great transitions of African-American life: transition from Africa to New World slavery, transition from slavery to freedom, and transition from rural to urban milieus. P/NP or letter grading.

148. Introduction to Public/Applied History. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. General survey of historical definitions of, and debates about, public and applied history, that is, history in non-academic settings across different periods and geographic regions. Survey supplemented with case studies drawn from historical research used to inform museum exhibitions, public policy, historic commemoration, digital projects, and documentary and popular media projects. Through assignments in analytical writing, and collaborative research, students engage with variety of approaches, tools, and media. Research on local historical topics to foster well-grounded understanding of how history is applied and interpreted in variety of places, settings, and media for variety of audiences and purposes. P/NP or letter grading.

149A-149B. North American Indian History. (4–4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. History of Native Americans from contact to present, with emphasis on historical dimensions of culture change. In-depth discussion and analysis of major dimensions of how Native Americans have influenced or reflected on American cultures. Focus on selected Indian peoples in each period. P/NP or letter grading. 149A. Precontact to 1830; 149B. 1830 to Present.

150A. Comparative Slavery Systems. (4) Same as African American Studies M150A.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Examination of slavery experiences in various New World slave societies, with emphasis on outlining similarities and differences among legal status, treatment, and slave cultures of North American, Caribbean, and Latin American slave societies. P/NP or letter grading.

150B-M150C. Introduction to Afro-American History. (4–4) Same as African American Studies M150B-M150C.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Exploration of African American experience, with emphasis on three great transitions of African-American life: transition from Africa to New World slavery, transition from slavery to freedom, and transition from rural to urban milieus. P/NP or letter grading.

150D. Recent African American Urban History: Funk Music and Politics of Black Popular Culture. (4) Same as African American Studies M150D.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Exploration of musical genre known as funk that emerged in its popular form during late 1960s and reached popular high point, in black culture, during 1970s. Funk, fusion of gospel, blues, funk, rhythm and blues, soul, rock, and many other musical styles, offers student unique window into recent African American history. P/NP or letter grading.

151E. African American Nationalism in First Half of 20th Century. (4) Same as African American Studies M151E.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Special focus on Southern California. P/NP or letter grading.

152E. African American Nationalism in First Half of 20th Century. (4) Same as African American Studies M152E.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Special focus on Southern California. P/NP or letter grading.

151F. African American Nationalism in First Half of 20th Century. (4) Same as African American Studies M151F.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Special focus on Southern California. P/NP or letter grading.

151G. African American Nationalism in First Half of 20th Century. (4) Same as African American Studies M151G.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Special focus on Southern California. P/NP or letter grading.
154. History of California. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Economic, social, intellectual, and political development of California from earliest times to present. P/NP or letter grading.

155. History of the Americas. (4) (Same as Chicana and Chicano Studies M183.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Social, economic, cultural, and political development of Los Angeles and its environs from time of its founding to present. Emphasis on diverse peoples of area, changing physical environment, various interpretations of city, and Los Angeles’ place among American urban centers. P/NP or letter grading.

156. Topics in U.S. History. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Examination of specific historical themes and/or major issues in U.S. history. Three hours of historical events of significance occurring both in U.S. and Mexico. Lectures, special presentations, reading assignments, letter examinations, library and/or field research, and submission of paper. P/NP or letter grading.

151B. History of Chicano Peoples. (4) (Same as Chicana and Chicano Studies M159B.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Survey course lecture on historical development of Mexican (Chicano) community and society from indigenous descent in U.S. three centuries of conquest to 20th century, with special focus on labor and politics. Provides integrated understanding of change over time in Mexican community by inquiry into major formative issues affecting community. Within framework of dominance and resistance, discussion deals with social structure, economy, labor, culture, political organization, conflict, and ideology. Develops understanding of historical events of significance occurring both in U.S. and Mexico. Lectures, special presentations, reading assignments, written examinations, library and/or field research, and submission of paper. P/NP or letter grading.

151C. Understanding Whiteness in American History and Culture. (4) (Same as Chicana and Chicano Studies CM182.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. History, construction, and representation of whiteness in American society. Readings and discussions trace evolution of white identity and explore its significance to historical construction of race class in American history. Letter grading.

151D. Chicana Historiography. (4) (Same as Chicana and Chicano Studies M158 and Gender Studies M157.) Lecture, four hours. Examination of Chicana historiography, looking closely at how practice of writing history has affected Chicanas into particular narratives. Using Chicana feminist approaches to study of history, revisiting of specific historical periods and movements such as Spanish Conquest, Mexican Period, America, Mexican Revolution, and Chicano Movement to excavate untold stories about women's participation in and contribution to making of Chicana and Chicano history. P/NP or letter grading.

151E. Latino Metropolis: Architecture and Urbanism in Americas. (4) (Same as Chicana and Chicano Studies M187 and Urban Planning M187.) Lecture, four hours. Introduction to history of architecture and urbanism in Americas, from fabled cities of Aztec empire to barrios of 21st century Los Angeles and Miami. Emphasis on role of cities in Latina/Latino experience. Within framework of domination and resistance, discussion deals with social structure, economy, labor, culture, political organization, conflict, and ideology. Develops understanding of historical events of significance occurring both in U.S. and Mexico. Lectures, special presentations, reading assignments, written examinations, library and/or field research, and submission of paper. P/NP or letter grading.

152. Asians in American History. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Study of West as frontier and as region, in transit from Atlantic seaboard to Pacific, from 17th century to present. P/NP or letter grading.

153. American West. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for seniors. Study of West as frontier and as region, in transit from Atlantic seaboard to Pacific, from 17th century to present. P/NP or letter grading.

154. History of California. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Economic, social, intellectual, and political development of California from earliest times to present. P/NP or letter grading.

155. History of the Americas. (4) (Same as Chicana and Chicano Studies M183.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Social, economic, cultural, and political development of Los Angeles and its environs from time of its founding to present. Emphasis on diverse peoples of area, changing physical environment, various interpretations of city, and Los Angeles’ place among American urban centers. P/NP or letter grading.

156. Topics in U.S. History. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Examination of specific historical themes and/or major issues in U.S. history. Three hours of historical events of significance occurring both in U.S. and Mexico. Lectures, special presentations, reading assignments, written examinations, library and/or field research, and submission of paper. P/NP or letter grading.

157A. Early Latin America. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Survey of social and cultural history of Latin American countries from conquest to independence, with emphasis on society, culture, and ethnic aspects. P/NP or letter grading.

157B. Indians of Colonial Mexico. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Survey of social and cultural history of Indians of Mexico, especially central Mexico, from time of European conquest until Mexican independence, with emphasis on internal views of Indian groups and patterns on basis of records produced by Indians themselves. P/NP or letter grading.

159. Latin America in 19th Century. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Intensive analysis of economic, social, and political problems of Latin American nations from their independence to around 1910. P/NP or letter grading.

160A. Latin American Elitelore. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Elitelore (defined as oral or noninstitutionalized knowledge involving leaders' conceptual and perceptual life history views) in contrast to folklore (followers' traditional or popular views). Elitelore genres include oral history, literature, and cinema. P/NP or letter grading.

160B. Mexican Revolution since 1910. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Examination of concept of permanent crisis to describe and explain structure of permanent revolution under one-party democracy. Analysis of Mexican Revolution and 1917 Constitution, on stability and problems and crises that have influenced modern-day Mexico, if in modified form. P/NP or letter grading.

161. Topics in Latin America History. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Examination of major issues in history of Latin America. May be repeated for maximum of 16 units with topic and/or instructor change. P/NP or letter grading.

162A. Modern Brazil. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Selected topics in political, economic, social, and cultural development of Brazil, with emphasis on mogoletto for change. 1850 to present. Discussions, films, slides, and guest speakers supplement and complement lectures. P/NP or letter grading.

162B. Brazil and Atlantic World, 1500 to 1822. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Exploration of development of colonial society in Brazil from discovery in 1500 to independence in 1822, placing it in context of Portuguese overseas expansion in Asia, Africa, and Americas. Emphasis on Portuguese, indigenous, and African roots of modern Brazil. P/NP or letter grading.

162C. History of Argentina. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. History of economic, political, social, and cultural developments that have shaped Argen-
ment of agriculture, growth of trade, rise of states, and incorporation of regions into world economy. P/NP or letter grading.

168A-168B. History of Southern Africa. (4–4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Attention to social and economic development; recommended preparation: courses 11A or 11B. P/NP or letter grading.

169A. Origins of South African peoples and their interactions to 1870. 168B. Since 1870. Interactions between inhabitants of southern Africa and others.

169A-169B. Thought and Society in China. (4–4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. P/NP or letter grading.

169C. Since 1800. Social, economic, and cultural development of China from 1800 to 20th century. Focus on social, political, and economic conditions within which Chinese orthodox and heterodox values evolved and changed. Emphasis on themes of Chinese intellectual life in 20th century in light of earlier currents of thought.

170A. Culture and Power in Late Imperial China. (4) Lecture, three hours; discussion, one hour (when scheduled). Recommended preparation: courses 11A or 11B. Designed for juniors/seniors. Analysis of relations of power and cultural expressions of dominance and resistance in late imperial China (1000 to 1800), with emphasis on interplay of economic forces, ideas, and social and political institutions. Examination of institutions of state, family, school, and city; idioms of folk religion, death, and afterlife; political, legal, and medical discourse; popular culture, and social identity; love, sexuality, and private life. P/NP or letter grading.

170B. Selected Topics in Chinese History from 1500. (4) Lecture, three hours; discussion, one hour (when scheduled). Recommended preparation: course 11B. Designed for juniors/seniors. Selected topics that may vary from year to year. Recent offerings include law, society, Chinese and popular expressions of Chinese cultural life from 1000 to 20th century. Emphasis on social, political, and economic conditions within which Chinese orthodox and heterodox values evolved and changed. Emphasis on themes of Chinese intellectual life in 20th century in light of earlier currents of thought.

170C. History of Women in China, AD 1000 to Present. (4) Same as Gender Studies M170C. Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Topics include women and family, women in Confucian ideology, women in literati culture, feminist movement, and women and communist revolution. P/NP or letter grading.


170E. Economic History of China. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Survey of development of Chinese economy and social, technological, intellectual, and political dynamics that produced distinctive patterns in evolution of China’s economy from antiquity to present day. P/NP or letter grading.

171. Variable Topics in Japanese History. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Important topics in Japanese history, including political change, economic development, social questions, and popular culture, and as media and arts, explored through extensive readings. May be repeated for maximum of 16 units with topic and/or instructor change. P/NP or letter grading.

172A. Japan—Ancient and Medieval History. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Political, economic, and cultural development of Japan from prehistory to 1600. P/NP or letter grading.

172B. Japanese History: Early Modern, 1600 to 1868. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Political, economic, and cultural development of Japan from 1600 to 1868. P/NP or letter grading.

172C. Modern Japan, 1868 to 1945. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Investigation of meaning of modern “Japan” for newly national (and imperial) Japan, in light of ideological upheavals in daily experience, both in and after Japan. Exploration of meaning of “modern” and fraught interplay of imperial and anticolonial ambitions in domestic and foreign politics. World War II experience and radical and conservative effects of Allied Occupation. Foregrounding of professional practice of history and historical creation of categories, practices, and perspectives that have become second nature (i.e., linear time, nation, and modern social norms). Topics also include gender, sexuality, aesthetics, fascism, eugenics and race, hygiene, bloodsucking, monsters, anarchism, time, and citizenship, protest, and Cold War. Socratic-style discussion in lecture. P/NP or letter grading.

173A. Japanese Popular Culture. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Exploration of Japanese modern cultural production in 20th century, focusing on uses to which cultural products, including film, music, and literature, were put to postwar political ends. P/NP or letter grading.

173B. Women in 20th-Century Japan. (4) Same as Gender Studies M173B. Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Historical and world history through state documents, autobiographical voices, contemporary television, and other varying historical sources, including topics such as women and new political order (1900 to 1930), women, war, and empire (1930 to 1945), and women in consumer society (1980s to 1990s). P/NP or letter grading.

173C. Shinto, Buddhism, and Japanese Folk Religion. (4) Same as Asian American Studies M173C. Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Social dimension of various ways, great and little: Shinto’s connection with cultural nativism, Meiji Outbreak of Reformation and Zen’s relation to warrior culture, folk religious aspects such as shamanism, ancestor worship, and millenarianism. P/NP or letter grading.

173D. Postwar Japanese History through Film. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Exploration of postwar Japanese history through medium of film and film criticism. Much of postwar Japanese cinema can be seen as reflecting on and questioning place of Japan in world reshaped by catastrophic war and its lingering specter. Through screenings and critical discussion of select films spanning half-century following World War II, life, death, aesthetics, and sociopolitical significance of postwar as demarcated category in Japan. Reflection on ways in which filmic presentations of state of being postwar engaged with lived history, memory, and present time. P/NP or letter grading.

174A. Early History of India. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Exploration of postwar Japanese history through medium of film and film criticism. Much of postwar Japanese cinema can be seen as reflecting on and questioning place of Japan in world reshaped by catastrophic war and its lingering specter. Through screenings and critical discussion of select films spanning half-century following World War II, life, death, aesthetics, and sociopolitical significance of postwar as demarcated category in Japan. Reflection on ways in which filmic presentations of state of being postwar engaged with lived history, memory, and present time. P/NP or letter grading.

174B. History of India. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. India, from earliest times to founding of Mughal Empire. P/NP or letter grading.

174C. Contemporary South Asia. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Political economy of imperialism and Britain’s civilizing mission, especially in terms of race and gender, between colonized and colonizers and to questions of resistance and nationalism. P/NP or letter grading.

174D. Indo-Islamic Interactions, 700 to 1750. (4) Same as Religion M174D. Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Historical introduction to Muslim community and to questions of resistance and nationalism. P/NP or letter grading.

174E. Indo-Islamic Interactions, 1750 to 1950. (4) Same as Religion M174E. Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Exploration of interplay of factors that, from Christian missionaries to Islamic madrasas, shaped colonial mentality and French. P/NP or letter grading.

174F. Gandhi and Making of Modern India. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. History of life and ideas of Mahatma Gandhi, known world over as prophet of nonviolence and principal architect of Indian independence. Gandhi was also spiritual thinker, social reformer, critic of Western modernity, interpreter of Indian civilization, staunch supporter of Indian syncretism, voluminous writer, and foreman, not only in India, but of many great social and ecological movements of our times. Focus on Gandhi’s idea of satyagraha, resistance to oppression through truth (satyà) and nonviolence (ahrmyà), and his nonviolent campaigns against colonial rule, before and after. Gandhi’s concept of life and thought, his critiques of modernity and industrial civilization, and his relationship to Indian nationalism. Discussion of feminist, Dalit (low-caste), Marxist, and modernist critiques of his ideas, and reflections on his role in modern India and global circulation of his ideas over last six decades. P/NP or letter grading.

174G. Indian Identity in U.S. and Diaspora. (4) Same as Asian American Studies M174G. Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. History of overseas Indian communities; transformations of Hinduism in diaspora; emergence of new forms such as bhangra rap and chutney music; relations between Indians and other racial and ethnic groups; Indian women as embodiment of Indian culture; diasporic identities. P/NP or letter grading.

175A. Cultural and Political History of Contemporary South Asia. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Problem of modernity; partition of India and emergence of Pakistan; political, social, ecological, and women’s movements; struggle for rights and conflicts of identity among Muslims, Hindus, and Sikhs; terrorism in Sri Lanka and Punjab; public culture, popular cinema, and colonial rebellion. May be repeated for maximum of 16 units with topic and/or instructor change. P/NP or letter grading.

175B. Special Topics in Contemporary Indian History. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Treatments of major issues in history of India. May be repeated for maximum of 16 units with topic and/or instructor change. P/NP or letter grading.

176A. History of Southeast Asia to 1815. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Examination of expansion of European influence in political and economic spheres, growth of nationalism, and process of decolonization. P/NP or letter grading.

176B. History of Southeast Asia: Southeast Asia since 1815. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Examination of expansion of European influence in political and economic spheres, growth of nationalism, and process of decolonization. P/NP or letter grading.
M160B. Historical Perspectives on Gender and Science. (4) (Same as Gender Studies M160B) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Historical cases illustrating how gender enters practices and concepts of science. Topics include early scientific conceptions of nature, personhood of man, role of women in scientific revolution, scientific investigations of women and femininity. P/NP or letter grading.

M160C. Science and Technology in 20th Century. (4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Development of science and technology and their impact on society. Topics include scientific community, social Darwinism, atomic bomb and nuclear proliferation, Cold War and American science, environmentalism, molecular biology and genetic engineering. P/NP or letter grading.

M181A. Variable Topics in Jewish History. (4) (Same as Jewish Studies M181A) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Examination of major issues in Jewish history. May be repeated for maximum of 16 units with topic and/or instructor change. P/NP or letter grading.

M181B. Ancient Jewish History. (4) (Same as Jewish Studies M182A and Religion M182A.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Survey of historical methodologies and interpretation. Examination of ethno-religious and methodological implications of writing Jewish history in digital age and learning how to read and analyze these new media works as primary and secondary sources. Topics focused on post-exilic period to present time. Topics studied from perspective of Jewish cultural and intellectual history, include identity and status, religious tolerance versus forced conversion, Jewish emancipation, and dynamic and millennia-old interactions between Jewish, Christian, and Islamic cultures. P/NP or letter grading.

M178. Introduction to History and Culture of Iran. (4) (Same as Iranian and Islamic Studies M178) Lecture, three hours. Introduction to political, cultural, social, and economic history of Iran. Exploration of major issues in Iranian history. May be repeated for maximum of 16 units with topic change. P/NP or letter grading.

M180A. History of Religions: Myth. (4) (Same as Religion M180A.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Rich variety in religious practice and thought, with emphasis on Mesopotamia and Syria and with reference to religions of ancient Israel: varying concepts of divinity, hierarchies of gods, prayer and cult, magic, feminine. P/NP or letter grading.

M180B. Modern Jewish History. (4) (Same as Jewish Studies M182B and Religion M182B.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Survey of early modern Jewish history beginning with immensely persecutory expulsion of Jews from Spain in 1492, followed by transformation in Jewish society and identity over five centuries in Europe and Middle East, and concluding with nationalism, P/NP or letter grading.

M182A. Ancient Jewish History. (4) (Same as Jewish Studies M182A and Religion M182A.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Survey of early modern Jewish history beginning with immensely persecutory expulsion of Jews from Spain in 1492, followed by transformation in Jewish society and identity over five centuries in Europe and Middle East, and concluding with nationalism, P/NP or letter grading.

M182B. Medieval Jewish History. (4) (Same as Jewish Studies M182B and Religion M182B.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Exploration of medieval period of Jews from Spain in 1492, following by transformations in Jewish society and identity over centuries in Europe and Middle East, and concluding with nationalism, P/NP or letter grading.

M182C. Modern Jewish History. (4) (Same as Jewish Studies M182C.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Survey of early modern Jewish history beginning with immensely persecutory expulsion of Jews from Spain in 1492, followed by transformation in Jewish society and identity over five centuries in Europe and Middle East, and concluding with nationalism, P/NP or letter grading.

M183A-183B. Third Reich and Jews. (4–4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Examination of unfolding Second World War. Emphasis on how Germany has played in reshaping of Jewish identities, community, and Jews. Exploration of themes related to regionalism in American Jewish history, comparative immigration and migration patterns, and frontiers and borders, while providing overview of historical methodologies and interpretation. Examination of the continuity/discontinuity with Judaism, stressing its continuity/discontinuity with Judaism, P/NP or letter grading.

M183C-183D. Modern Jewish History. (4–4) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Main themes in modern Jewish history, with emphasis on Mesopotamia and Syria and with reference to religion of ancient Israel: varying concepts of divinity, hierarchies of gods, prayer and cult, magic, feminine. P/NP or letter grading.

M184A. History of Anti-Semitism. (4) (Same as Jewish Studies M184A) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Survey of origins and historical development of anti-Semitism. P/NP or letter grading.

M184B. History of Anti-Semitism. (4) (Same as Jewish Studies M184B) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Survey of origins and historical development of anti-Semitism. P/NP or letter grading.

M185A. History of Zionism and State of Israel. (4) (Same as Jewish Studies M185A) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. History of Zionism and State of Israel from 1948 to present. P/NP or letter grading.

M185B. Religions of Ancient Near East. (4) (Same as Ancient Near East M185D and Religion M185D) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. History of religions of ancient Near East, with emphasis on Mesopotamia and Syria and with reference to religions of ancient Israel: varying concepts of divinity, hierarchies of gods, prayer and cult, magic, feminine. P/NP or letter grading.

M185D. Religions of Ancient Near East. (4) (Same as Ancient Near East M185D and Religion M185D) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. History of religions of ancient Near East, with emphasis on Mesopotamia and Syria and with reference to religions of ancient Israel: varying concepts of divinity, hierarchies of gods, prayer and cult, magic, feminine. P/NP or letter grading.
M185A. Women and Gender, Prehistory to 1792. (4)
(Same as Gender Studies M186A.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Exploration of history of women, gender, and sexuality from prehistory to 1792. First half deals with period before written history; asks when did gender appear? How and why did patriarchy develop? Topics include evolution of women's bodies, appearance of gender, women's contribution to Neolithic revolution of food production; facts, creation myths, and women and sexuality in different religions. Consideration of effects of European conquest on Mesoamerican women, women's power in monarchies, gender dimensions of Atlantic slavery, and first manifestations of feminist consciousness in second half. Objects or texts created by women examined or read throughout. P/NP or letter grading.

M186B. Cultural Studies (C1850 to Present). (4)
(Same as Gender Studies M186B.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/senior. Introduction to movements for women's rights (educational, political, economic, sexual, and reproductive) around world and over one and half centuries. P/NP or letter grading.

187A-187M. Variable Topics History of Topics
Seminar. (4 each) Seminar, three hours. Proseminars in Honors History involving close reading and critical discussion of secondary scholarship and primary sources on selected topics. Reading, discussion, and analytical writing culminating in one or several historiographical essays. May be repeated for credit. P/NP or letter grading. 187A. American History; 187B. Medieval; 187C. Europe; 187D. U.S.; 187E. Latin America; 187F. East Asia; 187G. Science/Technology; 187H. Africa; 187I. Southeast Asia.

C187N-C187R. Topics in Historiography. (4 each)
Seminar, three hours. Seminar on historiography involving close reading and critical discussion of secondary scholarship on selected topics. Reading, discussion, and analytical writing culminating in one or several historiographical essays. May be repeated for credit. P/NP or letter grading. C187N. India. (Formerly numbered 187N.) May be concurrently scheduled with course C200K; C187O. World. (Formerly numbered 187O.) May be concurrently scheduled with course C200F; C187P. Theory of History. May be concurrently scheduled with course C200Q; C187R. Japan. (Formerly numbered 187R.) May be concurrently scheduled with course C200M.

188. Special Courses in History. (4)
Lecture, three hours. Departmentally sponsored experimental or temporary courses, such as those taught by visiting faculty, may be repeated for credit with topic change.

188A. Individual Studies for USIE Facilitators. (1)
Tutorial, to be arranged. Enforced corequisite: Honors College 101E. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor to discuss USIE seminar topic, conduct preparatory research, and begin preparation of syllabus. Individual contract with faculty mentor required. May not be repeated. Letter grading.

188B. Individual Studies for USIE Facilitators. (2)
Tutorial, to be arranged. Enforced corequisite: Honors College 101E. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor to finalize course syllabus. Individual contract with faculty mentor required. May not be repeated. Letter grading.

189. Advanced Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to undergraduate lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

189HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to upper-division lecture course. Individual dual study with instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

191A-191R. Capstone Seminars: History. (4 each)
Seminar, three hours. Designed for seniors. Limited to 15 students meeting with faculty. Seminar organized on topics basis with reading, discussion, and development of culminating project. May be repeated once for credit. P/NP or letter grading. 191A. Ancient History; 191B. Medieval; 191C. Europe; 191E. Latin America; 191F. Near East; 191G. East Asia; 191I. Science/Technology; 191L. Jewish History; 191M. Southeast Asia; 191Q. Digital History; 191R. Japan.

C191D-C191F. Topics in History. (4)
Seminar, three hours. Designed for seniors. Limited to 15 students meeting with faculty member. Reading and discussion of selected topics, and development of culminating project. May be repeated once for credit. P/NP or letter grading. C191D. May be concurrently scheduled with course C201H; C191J. Africa. (Formerly numbered 191J.) May be concurrently scheduled with course C201N; C191K. History of Religions. May be concurrently scheduled with course 191K; C191L. Latin America; C191M. Southeast Asia; C191N. India. (Formerly numbered 191N.) May be concurrently scheduled with course C201H; C191O. World. (Formerly numbered 191O.) May be concurrently scheduled with course C201W; C191P. Historical Theory. May be concurrently scheduled with course C201G.

M191DC-C191DC. CAPPP Washington, DC, Research Seminars. (8)
(Same as Communication M191DC, Political Science M191DC, Public Affairs M191DC, and Sociology M191DC.) Seminar, three hours. Limited to CAPPP Washington, DC, program for undergraduate students in Center for American Politics and Public Policy's program in Washington, DC. Focus on development and execution of original empirical research based on experiences from Washington, DC-based field placements. Study of qualitative methods (observation, interviewing, etc.), with comparison to quantitative analysis. Examination of features of solid and significant research; intensive writing. Letter grading.

M194DC. CAPPP Washington, DC, Research Seminars. (4)
(Same as Political Science M194DC and Sociology M194DC.) Seminar, three hours. Limited to CAPPP Washington, DC, program for undergraduate students in Center for American Politics and Public Policy's program in Washington, DC. Focus on development and execution of original empirical research based on experiences from Washington, DC-based field placements. Study of qualitative methods (observation, interviewing, etc.), with comparison to quantitative analysis. Examination of features of solid and significant research; intensive writing. Letter grading.

195. Community or Corporate Internships in History.
(4) Tutorial, three hours. Limited to juniors/seniors. Internship in supervised setting in community agency or business. Students meet on regular basis with instructor and provide periodic reports of their experience. May be repeated for credit. Individual contract required. P/NP or letter grading.

195CE. Community and Corporate Internships in History.
Tutorial, to be arranged; fieldwork, eight to 10 hours. Limited to juniors/seniors. Internship in supervised setting in community agency or business. Students meet on regular basis with instructor and provide periodic reports of their experience. May be repeated for credit. Individual contract with supervising faculty member required. P/NP grading.

M200V. Advanced Historiography: Afro-American.
(Same as African American Studies M200A.) Seminar, three hours. May be repeated for credit. S/U or letter grading.

M200W. Advanced Historiography: American Indian Peoples.
(Same as American Indian Studies M200A.) Lecture, 90 minutes; seminar, 90 minutes. Introduction to culture-histories of North American Indians and review of Indian concepts of history. Stereo-
typical approach to content and methodologies related to Indian past that is interdisciplinary and multicultural in its scope. Letter grading.


200Y. Advanced Historiography: Application of Economics to History. (4) Discussion, three hours.

200Z. Advanced Historiography: Chicano. (4) Discussion, three hours. Graduate survey of leading literature in Chicano history, with emphasis on new methodological and theoretical approaches in the field. Letter grading.

201A-201V. Topics in History. (4 each) Seminar, three hours. Graduate courses involving reading, lecturing, and discussion of selected topics. May be repeated for credit. When concurrently scheduled with course 191, undergraduates must obtain consent of instructor to enroll. S/U or letter grading. 201A. Ancient Greece; 201B. Ancient Rome; 201C. Medieval; 201D. Early Modern Europe; 201E. Modern Europe; 201F. Russia; 201G. Latin America; 201H. Near East; 201L. China; 201M. Japan; 201N. Science/Technology; 201R. Jewish History; 201S. Asia; 201T. Southeast Asia; 201U. Digital History.

201H-201W. Topics in History (4) Seminar, three hours. Designed for graduate students. Reading and discussion of selected topics. May be repeated for credit. May be concurrently scheduled with course 191D-191F. S/U or letter grading. 201H-U. (Formerly numbered 201H.) May be concurrently scheduled with course 191D; 201K. India. (Formerly numbered 201N.) May be concurrently scheduled with course 191K; 201P. History of Religions. (Formerly numbered 201P.) May be concurrently scheduled with course 191K; 201Q. Theory of History. (Formerly numbered 201Q.) May be concurrently scheduled with course 191P; 201W. World. (Formerly numbered 201W.) May be concurrently scheduled with course 191C.

202A-202B. Seminars: Comparative Modern Economic History. (4-4) Seminar, three hours. Course 202A is requisite to 202B. Designed for graduate students. Exploration of where historians have been, where they now, where they can be, and where they should be as highly educated, actively engaged members of society. Collaborative project required. S/U or letter grading.

205A-205B. History Department Professional Development Seminars. (1-1) Seminar, one hour. Course 205A is requisite to 205B. Limited to history doctoral students to have ongoing issues of professional development of students in History PhD program. In Progress (205A) and S/U (205B) grading.

206A-206B. Seminars: Near East History. (4-4) Seminar, three hours. Course 206A is requisite to 206B. In Progress (206A) and letter (206B) grading.

208A-208B. Variable Topics: Interdisciplinary Studies. (4-4) Lecture, three hours; discussion, one hour (when scheduled). Course 208A is not requisite to 208B. Topics may include gender, world history, masculinity, and economic history. May be repeated for credit with topic change. Concurrently scheduled with courses C101A-C101B. S/U or letter grading.


211A-211B. Seminar in Modern European History. (4) Seminar, three hours. Course 211A is requisite to 211B. In Progress (211A) and letter (211B) grading.

212. Methods in Armenian Oral History. (4) Seminar, three hours. Uses and techniques of Armenian oral history; preparation and presentation of oral histories; procedures; methods of compilation and evaluation. Field assignments, interviews, and summaries and/or paper based on interviews. S/U or letter grading.

213A-213B. History of Women, Men, and Sexuality. (4-4) Seminar, three hours. S/U or letter grading. 213C. History of Women, Men, and Sexuality Historiography. (4) Seminar, three hours. Limited to graduate students. Exposure to newest branch of gender history; study of masculinity. Focus not on men per se, but on values, practices, and texts that constitute masculinity as one gender. Readings focus on broad range of chronological periods from antiquity to 20th century and geographical areas including Americas, Asia, Europe, and letter grading.

214. Topics in World History. (4) Seminar, three hours. Graduate seminar utilizing world-historical perspective to examine variety of broad themes in human history. Topics vary annually. Letter grading.

215A-215B. Seminars: Ancient History. (4-4) Seminar, three hours. Course 215A is requisite to 215B. In Progress (215A) and letter (215B) grading.

216A-216B. Seminars: Byzantine History. (4-4) Seminar, three hours. Course 216A is requisite to 216B. In Progress (216A) and letter (216B) grading.

217. Sources and Handbooks of Medieval History. (4) Seminar, three hours. Preparation: reading knowledge of German or French. Introduction to types of medieval source materials and the handbooks needed to use them.

218. Paleography of Latin and Vernacular Manuscripts, 900 to 1500. (4) Same as Classics M218, English M215, and French M210.) Lecture, three hours; discussion. Introduction to history of Latin and vernacular manuscript book from 900 to 1500 to (1) train students to make informed judgments with regard to place and date of origin, (2) provide training in accurate reading of Latin and vernacular manuscripts, and (3) examine manuscript book as witness to changing society that produced it. Focus on relationship between Latin manuscripts and vernacular manuscripts with regard to their respective presentation of written texts. S/U or letter grading.

219A-219B. Seminars: Medieval History. (4-4) Seminar, three hours. Course 219A is requisite to 219B. In Progress (219A) and letter (219B) grading.

220. Colloquium for Entering Graduate Students in Modern European History. (4) Seminar, three hours. Normally limited to and required of all modern European history graduate students. Introduction to topics, methods, and historiography of modern European history.

226A-226B. Seminars: Italian Renaissance. (4-4) Seminar, three hours. Course 226A is requisite to 226B. In Progress (226A) and letter (226B) grading.

227A-227B. Seminars: Reformations. (4-4) Seminar, three hours. Course 227A is requisite to 227B. In Progress (227A) and letter (227B) grading.

229A-229B. Seminars: Early Modern European History. (4-4) Seminar, three hours. Course 229A is requisite to 229B. In Progress (229A) and letter (229B) grading.

M230A-M230B. Seminars: Modern European History. (4-4) (Same as Art History M230B-M230C.) Seminar, three hours. Course M230A is requisite to M230B. May be repeated for credit with consent of adviser. In Progress (M230A) and letter (M230B) grading.

231A-231B. Seminars: Modern European Intellectual and Cultural History. (4-4) Seminar, three hours. Course 231A is requisite to 231B. In Progress (231A) and letter (231B) grading.

232A-232B. Seminars: French History of 19th and 20th Centuries. (4-4) Seminar, three hours. Course 232A is requisite to 232B. In Progress (232A) and letter (232B) grading.

233A-233B. Seminars: Russian/Soviet History. (4-4) Seminar, three hours. Course 233A is requisite to 233B. In Progress (233A) and letter (233B) grading.

234A-234B. Seminars: Modern History of Spain, Portugal, and Italy. (4-4) Seminar, three hours. Course 233A is requisite to 233B. In Progress (233A) and letter (233B) grading.

235A-235B. Economic History of Europe, 1780 to 1939. (4-4) Seminar, three hours. Course 235A is requisite to 235B. Cyclical trend, various economic regimes, and integration into international economy of Europe. In Progress (235A) and letter (235B) grading.

235C-235D. Economic History of 20th-Century Europe. (4-4) Seminar, three hours. Course 235C is requisite to 235D. Cyclical trend, various economic regimes, and integration into international economy of Europe. In Progress (235C) and letter (235D) grading.

M236A. Proseminar: Political Psychology. (4) (Same as Political Science M236A and Psychology M236A.) Seminar, three hours. Introduction to political psychology, including psychological theories, mass attitudes, group conflict, political communication, and elite decision making.

236B-236C. Seminars: Psychohistory. (4-4) Seminar, three hours. Course 236B is requisite to 236C. Exploration of individual and group psychological processes and their uses in historical research. In Progress (236B) and letter (236C) grading.

239A-239B. Seminars: English History—Middle Ages. (4-4) Seminar, three hours. Course 239A is requisite to 239B. In Progress (239A) and letter (239B) grading.

240A-240B. Seminars: English History—Modern History. (4-4) Seminar, three hours. Course 240A is requisite to 240B. In Progress (240A) and letter (240B) grading.

241A-241B. Seminars: German History. (4-4) Seminar, three hours. Course 241A is requisite to 241B. Designed for graduate students. In Progress (241A) and letter (241B) grading.


244A-244B. Seminars: British Empire History. (4-4) Seminar, three hours. Course 244A is requisite to 244B. In Progress (244A) and letter (244B) grading.
254. Colloquium: U.S. History. (4) Seminar, three hours. Normally limited to and required of all entering graduate students in U.S. History. Critical introduction to historical method, with emphasis on new methodological and conceptual approaches, use of source materials, and current literature of U.S. historiography.

246A-246B-246C. Introduction to U.S. History. (4–4) Seminar, three hours. Graduate survey of significant literature dealing with U.S. history from the Colonial period to the present. Each course may be taken independently for credit. 186A. Colonial Period; 246B, 1790 to 1900; 246C, 20th Century.

247A-247B. Seminars: Early American History. (4–4) Seminar, three hours. Course 247A is requisite to 247B. In Progress (247A) and letter (247B) grading.

251A-251B. Collaborative Research Seminars: American History. (4–4) Seminar, three hours. Research seminars taught jointly by two faculty members. In Progress (251A) and letter (251B) grading.

252A-252B. Seminars: Recent U.S. History to 1930. (4–4) Seminar, three hours. Course 252A is requisite to 252B. In Progress (252A) and letter (252B) grading.

253A-253B. Seminars: Recent U.S. History since 1930. (4–4) Seminar, three hours. Course 253A is requisite to 253B. In Progress (253A) and letter (253B) grading.

254A-254B. Seminars: U.S. Social and/or Intellectual History. (4–4) Seminar, three hours. Course 254A is requisite to 254B. In Progress (254A) and letter (254B) grading.

255A-255B. Business Enterprise and American Culture. (4–4) Seminar, three hours. Course 255A is requisite to 255B. In Progress (255A) and letter (255B) grading.

256A-256B. Seminars: America in World. (4–4) Seminar, three hours. Course 256A is requisite to 256B. In Progress (256A) and letter (256B) grading.

M256C. Political Economy of Race. (4) (Same as African American Studies M200B.) Seminar, four hours. Examination of history of political economy and of history of African diaspora, especially in their overlapping concerns with organization of race and racial states in contemporary world, development of modern imperialism — and emergence of global black resistance to both. Themes and topics considered may include capitalism and question of slavery; law, regulations, and legal pluralism in organization of markets and of development and nature of black sovereignty; history of regimes of gender and sexuality in social and capital reproduction; modalities of capital accumulation and production of space; racial violence and anti-racism; expansion; decolonization and growth of empire; history of finance capital and its discourses of debt; capitalism and history of anti-blackness; racism, neoliberalism, andgovernmentality; and emergence and content of black radical traditions and its critiques of radical capitalism. S/U or letter grading.

257A-257B. Seminars: U.S. Urban History. (4–4) Seminar, three hours. Course 257A is requisite to 257B. In Progress (257A) and letter (257B) grading.

258A-258B. Seminars: Working Class History. (4–4) Seminar, three hours. Course 258A is requisite to 258B. In Progress (258A) and letter (258B) grading.

M259A-M259B. History of Women. (4–4) (Same as Gender Studies M259A-M259B.) Seminar, three hours. Course M259A is requisite to M259B. History of women's social and political issues seen in U.S. and comparative context. In Progress (M259A) and letter (M259B) grading.

260A-260B. Seminars: Native American History. (4–4) Seminar, three hours. Course 260A is requisite to 260B. In Progress (260A) and letter (260B) grading.

M260C. Native American Revitalization Movements. (4) (Same as Anthropology M238.) Lecture, two hours; discussion, one hour. Examination of revitalization movements among native peoples of North America (north of Mexico). Specific revitalization includes Handsome Lake, 1870 and 1890 Ghost Dances, and Peyote Religion. In Progress (M260C) and letter (M260C) grading.

262A-262B. Seminars: Chicano History. (4–4) Seminar, three hours. Course 262A is requisite to 262B. In Progress (262A) and letter (262B) grading.

263A-263B. Seminars: History of American West. (4–4) Seminar, three hours. Course 263A is requisite to 263B. In Progress (263A) and letter (263B) grading.

M264. History of American Education. (4) (Same as Anthropology M238.) Lecture, two hours; discussion, one hour. Examination of educational thought and of social forces impinging on American education from 1880s to present. Analysis of relation between these ideas and forces, and aims and practices of American education today. S/U or letter grading.

266A-266B. Seminars: Colonial Latin American History. (4–4) Seminar, three hours. Course 266A is requisite to 266B. In Progress (266A) and letter (266B) grading.

M266C. Analyzing Historical Texts. (4) (Same as Linguistics M238.) Seminar, four hours. Designed for graduate students. Analysis of linguistic structure and ethnohistorical context of legal and other documents written by native scribes and translators. Topics include paleographic technique and text analysis software. May be repeated for credit. S/U grading.

267A-267B. Seminars: Latin American History, 19th and 20th Centuries. (4–4) Seminar, three hours. Course 267A is requisite to 267B. In Progress (267A) and letter (267B) grading.

M287. Central Asian Studies: Discipline, Methods, Debates. (2) (Same as Anthropology M247 and Near Eastern Languages M268.) Seminar, two hours. Literature on political economy of ethnohistory practiced in humanities and social sciences disciplines. S/U grading.

288A-288B. Seminars: South Asia. (4–4) Seminar, three hours. Course 288A is requisite to 288B. In Progress (288A) and letter (288B) grading.

289A-289B. Seminars: Southeast Asia. (4–4) Seminar, three hours. Course 289A is requisite to 289B. In Progress (289A) and letter (289B) grading.

291A-291B. Seminars: Jewish History. (4–4) Seminar, three hours. Course 291A is requisite to 291B. Studies in intellectual and social history of Jewish people from ancient times to modern period. In Progress (291A) and letter (291B) grading.

293A-293B. Seminars: History and Religions. (4–4) Seminar, three hours. Course 293A is requisite to 293B. Seminar devoted to selected topics of interdisciplinary nature. In Progress (293A) and letter (293B) grading.

294A-294B. Western Science, Religion, and Political Economy, 1600 to 1830. (4–4) Seminar, three hours. Study of science integrated within matrix of religious belief commonplace in early modern Europe and, to a lesser extent, in American colonies. Examination of relationship of both cultural matrices to political and economic change. S/U or letter grading.

295. Theories of Scientific Change. (4) Seminar, three hours. Historical and philosophical perspectives on science, focusing on rationality of scientific change and logic and psychology of scientific discovery. Readings and seminar-style discussions of such authors as Popper, Kuhn, Toulmin, Lakatos, Holton, Bush, Feyerabend, and others.

297A-297B. Seminars: History of Science. (4–4) Seminar, three hours. Course 297A is requisite to 297B. In Progress (297A) and letter (297B) grading.

M299. Interdisciplinary Studies in 17th and 18th Centuries. (4) (Same as English M298.) Discussion, four hours. Topics vary according to participating faculty. May be repeated for credit, S/U or letter grading.


282A-282B. Seminars: Chinese History. (4–4) Seminar, three hours. Course 282A is requisite to 282B. In Progress (282A) and letter (282B) grading.

M285B. Seminars: Japanese History. (4–4) Seminar, three hours. Course 285A is requisite to 285B. In Progress (285A) and letter (285B) grading.

M286. Japan in Age of Empire. (4) (Same as Anthropology M247P and Asian M292.) Seminar, three hours. Discussion and seminar-style discussions of such topics as the Meiji period, its significance in the history of Japan, and the impact on the modern era. S/U or letter grading.

296. Teaching Apprentice Practicum. (1 to 4) Seminar, to be arranged. Preparation: apprentice pass required. Employment as teaching assistant or fellow. Teaching apprenticeship under active guidance and supervision of regular faculty member responsible for curriculum and instruction at UCLA. May be repeated for credit with consent of instructor. S/U or letter grading.

490. Writing Workshop for Graduate Students. (4) Tutorial, three hours. Writing workshop on students' papers-in-progress. Analysis and group discussion of written work on analysis and writing of historical and philosophical essays. May be repeated for credit. S/U grading.
HONORS COLLEGIUM
College of Letters and Science
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Honors Collegium
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Program e-mail

Maria (Maite) T. de Zubiature, PhD, Chair

Faculty Committee
Maria (Maite) T. de Zubiature, PhD (Germanic Languages, Spanish and Portuguese) Robert B. Goldberg, PhD (Molecular, Cell, and Developmental Biology) Kelly A. Lytle Hernández, PhD (African American Studies, History) Christina G.S. Palmer, PhD (Human Genetics, Psychiatry and Biobehavioral Sciences, Society and Genetics) Zrinka Stahuljak, PhD (Comparative Literature, French and Francophone Studies) Christopher C. Tilly, PhD (Sociology, Urban Planning) Aaron Tornell, PhD (Economics) Aradhna K. Tripati, PhD (Atmospheric and Oceanic Sciences, Earth, Planetary, and Space Sciences; Environment and Sustainability)

Scope and Objectives
The Honors Collegium is a series of courses with an interdisciplinary emphasis designed for students enrolled in College Honors. It encourages animated discussion among students, as well as between students and professors and seeks to promote scholarly exchange across the major disciplines at UCLA. It offers small classes and individual attention.

Undergraduate Study
Each Honors Collegium course is staffed by a director who is distinguished in teaching and scholarship and may include a variable number of guest lecturers and additional specialists in their fields. Some courses satisfy general education requirements and serve as preparation for numerous majors in the College of Letters and Science. Counselors are available in the Honors Programs Office, A311 Murphy Hall, to advise and help students plan an integrated academic program.

Courses in the Honors Collegium are mainly interdisciplinary seminars, and the courses vary each year. Refer to the Schedule of Classes for current course listings.

Honors Collegium
Lower-Division Courses

1. Plague Culture. (5) Seminar, three hours. Study of episodes and metaphors of plague in Western culture from ancient times to current era of AIDS. Topics include scripture, ancient tragedy, Black Death, realist novel, high aesthetic metaphors of plague, Nazi propaganda, existential and absurdist thought, postwar cinema, contemporary American theater, and modern science and medicine. P/NP or letter grading.

2. Comparative Genocide. (4) Lecture, four hours: discussion, one hour. Social comparative study of genocide, combining theoretical concepts with case studies (such as Armenia, the Holocaust, American Indians, Uganda under Amin and Obote, etc.). P/NP or letter grading.

3. Personal Brain Management. (5) Seminar, four hours. Designed for College Honors students. Available psychotherapies, educational media, and drugs can alter our way of thinking. New wave of information technologies and biotechnologies is changing existing landscape. Survey of available tools that claim neuroplastic brain-changing effects, consideration of future developments, and engagement of students in discussion on ethical and philosophical implications of these developments. P/NP or letter grading.

4. Welcome to Dark Side: Human Pathology in World Literature. (5) Seminar, three hours. Designed for College Honors students. Exploration of various aspects of pathological human behavior and how they are portrayed in classic literary works. Spans disciplines of comparative literature (French, German, American Gothic, modern, English), medicine/psychiatry, and history. Major themes include fear and oppression; murder and infanticide; despair and suicide; barbarism and repression; hatred and revenge; incest and shame; jealousy and paranoia; madness and psychosis; sociopathy and evil. Elucidation of themes through texts, and discussion of each text in its historical, social, and cultural context. Examination of pathological behaviors in context of their medical and psychiatric framework when they correspond to clinical diagnostic entity. Texts used as springboard to elaborate on recurrent themes of the history of human civilization. P/NP or letter grading.

5. Representing Cleopatra: History, Drama, and Film. (5) Seminar, three hours. Examination of legendary queen of Egypt as seen by her contemporaries and study of origins of myths about her and ways in which subsequent cultures and eras have imagined her in literary, visual, and cinematic representations. P/NP or letter grading.

6. Energy Systems: More and Now. (5) Seminar, three hours. Review of physics and chemistry of concept of energy, history over ages of turning of discoveries into products in this area, including use of fossil fuel, and discussion of current energy debates, including alternative energies, P/NP or letter grading.

7. Saint and Heretic: Joan of Arc and Gilles de Rais. History and Myth. (5) Seminar, three hours. Examination of both history of Joan of Arc and Gilles de Rais and of way in which, over time, their histories became legends, driven by various agendas including national identity, beatification, and gender politics. P/NP or letter grading.

8. Life, Death, and Everything in Between. (5) Seminar, three hours. Designed for College Honors students. Literature course with classic texts used to explore various aspects of human condition as they relate to health and illness. Broad themes including creation, death, deformity, madness, contagion, infrared, and alienation to be drawn from texts spanning Shakespeare to Plato. Texts selected to illuminate one central aspect of human experience to be examined in its historical context as well as in context of contemporary practice of medicine. Exploration of social, philosophical, and ethical issues pertaining to each theme and timely and controversial aspects of modern healthcare. P/NP or letter grading.

9. Visual Communication and Scientific Principles. (8) Seminar, four hours. Opportunity for collaboration between those in science disciplines and those in arts/humanities-related disciplines. New ways in which science can be visually communicated, using tools, techniques, and methods that are typically outside science education. Science students learn innovative ways of presenting scientific data and design and the median and art students learn how to apply their skills to topics they might not usually address. P/NP or letter grading.

10. Language and Gender: Introduction to Gender Differences and Stereotypes. (5) Seminar, four hours; discussion, one hour. Designed for College Honors students. Prior knowledge of any foreign language not required. Introduction to language from sociological perspective of gender. Use of research and examples primarily in English, Japanese, and Russian to explore nature of and stereotypes about male and female gendered and gender language, as reflected in lexicogen, language behavior, phonetics and intonation, and language acquisition and linguistic change. P/NP or letter grading.

11W. Postmodern Culture. (5) Seminar, four hours. Enforced requisite: English Composition 3 or 3H or English as a Second Language 36. Exploration of theories and art (literature, music, film, fine art) that emerged after World War II in what has come to be known as postmodern era. Art criticizes master narratives of earlier age and fosters fragmentation, skepticism toward universal truth, commodification of knowledge, media creating reality, and globalization in industry and society. Satisfies Writing II requirement. Letter grading.

12. Sacred Form: Literature and Poetry in India from Bronze Age to Premodern Times. (4) Seminar, three hours. Exploration of cultural and literary development in India from early religious poetry (prior to 1000 BC) to broad range of literary styles and diverse religious and philosophical movements through classical, medieval, and premodern period. P/NP or letter grading.

13. Inquiry in Numbers. (5) Seminar, four hours. Preparation: high school algebra. Designed for College Honors students. It is for students who love mathematics and to see mathematics as mathematicians do, not as means to end, but as beautiful and artful in its own right, including elementary number theory and study of whole numbers. Development of rich and elegant theory of prime numbers, factorization, and modular arithmetic. P/NP or letter grading.

14. Interaction of Science and Society. (6) Seminar, three hours. Examination of interaction of science and society and effects of this interaction on history, development of societies, evolution of revolutionary ideas as modeled in Galileo, Darwin, and others, and selection of contemporary issues such as genetic engineering and war against infectious diseases. P/NP or letter grading.

15. Symmetry. (5) Seminar, four hours. Symmetry is one of most fundamental intellectual frameworks of civilization, one that permeates sciences, arts, and other endeavours. Symmetry as it appears in mathematics, physics, and biology. Connections to and discussion of visual arts and music. Guest speakers from our community to complement scientific point of view. P/NP or letter grading.

16. Science of Singing Voice. (5) Seminar, three hours. Study of methods, including computer laboratory work, of quantifying voice production. Study of students’ own vocal productions as well as recorded samples of famous singers. P/NP or letter grading.
17. Art, Entertainment, and Social Change. (5) Seminar, three hours. Designed for College Honors students. Integrative examination of evolving impact of arts and entertainment industry on various aspects of social change as environmental movements, politics and culture, criminology, local politics, and community. P/NP or letter grading.

18. Trial of Socrates. (5) Seminar, three hours. Examination of life and times of Socrates and trial that led to his execution, including in-class staging. P/NP or letter grading.

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their area of expertise and illustrating many paths of discovery at UCLA. P/NP grading.

20. What Is This Thing Called Science? Nature of Modern Science. (5) Lecture, three hours; discussion, one hour. Exploration of difference between science and other systems of knowledge; study of history and philosophy of science and examination of its reliability as objective knowledge. P/NP or letter grading.

21W. Rise and Fall of Modernism. (6) Seminar, three hours: writing laboratory, two hours. Enforced requisite: English Composition 3 or 3H or English as a Second Language 36. Study of early and middle 20th-century’s attempt to construct significance in a general climate of dissatisfaction by way of literature, literary criticism, and other intellectual movements. Satisfies Writing II requirement. Letter grading.

22. Comparative Odysseys. (5) Seminar, three hours. Designed for College Honors students. Greek and Chinese classics have in common two modes of heroism: one glorifying prowess and another celebrating mental cunning. Both modes are associated principally with men motivated by piety and honor. Interpretation of these traditional constructions of heroism, particularly conflation of courage and violence. Readings often-fraught racial and gender politics embedded in critical reading and analysis of these texts to question and why idea of human rights demands critical imagination. P/NP or letter grading.

23. Political Dissidence Today and in Ancient Greece: Trial and Death of Socrates in Its Classical and Legal Context. (5) Seminar, three hours. Study of trial and death of Socrates by examining its relevance today to legal treatment of dissent and civil disobedience in the U.S. and to variety of contemporary theories and movements. Introduction to legal system, values that animated that system, and new ways to think about roles of law. P/NP or letter grading.

24. We Could Be Heroes: Race, Gender, and the Contemporary Hero Narrative. (5) Seminar, four hours. Ways in which hero narratives represent and work through issues of racial and gender identity. Interdisciplinary consideration of hero narratives in film alongside various literary and media arts genres including graphic novel, blaxploitation films, hip-hop concept music, animated television series, and novel. Critical reading and analysis of these texts to question often-fraught racial and gender politics embedded in these cultural productions as way to access role that social change, ocean acidification, and mismanaged waste, including social and cultural responses to physical waste and cyber battle against Internet debris. P/NP or letter grading.

25. Politics and Passion: Judgment, Justice, and Emotions. (5) Seminar, four hours. How to combine judgment and emotions without them standing in way of justice, including our ability to listen and respond to pain of others. What shapes govern our political life? Should it be our reason or our emotions? Or is there some way to combine the two? Exploration of these questions through debates on place of emotions in politics, from ancient to contemporary thinkers within philosophical framework. P/NP or letter grading.

26. Representing Medicine: Art, Literature, and Film. (5) Seminar, four hours. Limited to Freshman Summer Program students. Exploration of interdisciplinary dimensions of medical representation, with emphasis on cross-cultural 20th-century portrayals of profession, including representations of doctor/patient relations, health care sites and circumstances, aging, alternative treatments, and mental health. Offered in summer only. P/NP or letter grading.

27. Varied Mathematics. (5) Seminar, four hours. In-depth exploration of mathematical and engineering topics. Ideas through study from history and anthropological sources. Simplest of topics that cause difficulties in traditional mathematics. Examples emphasize practical solutions. In place of terms used in mathematics, relevant views from popular culture, including science fiction, and personal experiences and student contributions. Sources include computer, control, space, and other contemporary scientific issues, and recontextualizing it as Eastern, South America, and Polynesia. P/NP or letter grading.

28. Material Culture and the Museum: Introduction to Collections-Based Research. (5) Seminar, three hours. Examination of relationship between people, objects, and ideas. Insight into why human beings have historically and contemporaneously created and conceived of things and their use and importance in daily life and in performance of cultural identity. Consideration of questions including how past and present intersect, how people have made sense of world over time and space, and how objects, heritage, collectors, and museums converge, diverge, and interact. P/NP or letter grading.


31. Scientific Method: Critical Inquiry into Question of Extraterrestrial Life. (4) Lecture, three hours; discussion, one hour. Course does not presume to answer question of whether intelligent life exists in the universe but rather uses this question as a pedagogic tool to introduce central ideas, techniques, and limitations of the scientific method—what questions would need to be debunked if knowledge would be needed, and what obstacles would have to be overcome just to address this question. P/NP or letter grading.

32. Global Geographies and Idea of Home. (5) Seminar, three hours. Designed for College Honors students. Home is potent symbolic notion across eras and cultures, locale from which we depart and to which we may return. Broader notions of home, as homeland, incessantly form basis of conflicts between people and nations. Investigation of what home is through challenging works of theory surrounding notions of space, place, longing, belonging, exile, and return, and through engagement of works of literature, film, and performance. P/NP or letter grading.

37W. Sampling and Remix: Aesthetics and Politics of Cultural Appropriation. (5) Seminar, three hours; laboratory two hours. Enforced requisite: English Composition 3 or English as a Second Language 36. Limited to College Honors students. Contemporary media literacy has spurred production of amateur remixes involving famous, forgotten, and modern works. But this is only one moment within far-reaching genealogy of cultural appropriation. Use of remix as lens through which to explore aesthetics and politics of historical and contemporary appropriation, including remixes of political speech, viral videos, and comedy mashups. Examination of fine line between honorific cultural alliance and allegations of theft. Satisfies Writing II requirement. P/NP or letter grading.

38. Film and History/Film as History. (5) Seminar, four hours. Designed for College Honors students. How do films reflect on, and even constitute, historical events? Examination of relationship between film and history and some ways in which film has functioned as history. Tracking questions of film and history from silent era to postfilm digital present, exposure to major issues in scholarly body of work in film and media studies while also learning about ways that films can engage with history. P/NP or letter grading.

39. Philosophy Ramble. (5) Seminar, three hours. Designed for College Honors students. Grounded in Aristotelian-style philosophy found in Martha Nussbaum’s Greek of Life and M.S. in Politeia, the intellectual powers. Prompted by wide range of philosophical readings and employing Socratic method of asking questions, examination of place of our lives—especially our civic lives—of attention, memory, will, science, prudence, and assessment/creation of self. Like Aristotle’s peripatetic version of Plato’s Academy, class takes regular walks together, using UCLA and West Los Angeles as living, engaging in intellectual dialog in historical tradition of exercising both body and mind. P/NP or letter grading.

40W. Transformations of Cultural Stories across Disciplines and Texts. (5) Seminar, four hours. Enforced requisite: English Composition 3 or 3H or English as a Second Language 36. Tracing of writing and rewriting of traditional story types, specifically the adventure story as represented by Defoe’s Robinson Crusoe and its remanifestations in Beowulf and the fairy tale as represented by Cinderella and its various cross-cultural remanifestations. Satisfies Writing II requirement. Letter grading.

41. Understanding Ecology: Finding Interdisciplinary Solutions to Environmental Problems. (5) Seminar, four hours. Designed for College Honors students. Exploration of ecological basis of planet’s most important environmental issues, including global climate change, ocean acidification, biodiversity loss, deforestation, pollution, and declining freshwater resources and fisheries. Examination of both hard science and interdisciplinary solutions (social, political, educational) to environmental problems. P/NP or letter grading.

43W. Science, Rhetoric, and Social Influence. (6) Seminar, four hours. Tracing of writing and rewriting of traditional story types, specifically the adventure story as represented by Defoe’s Robinson Crusoe and its remanifestations in Beowulf and the fairy tale as represented by Cinderella and its various cross-cultural remanifestations. Satisfies Writing II requirement. Letter grading.

44. Society of Excess: On Waste, Consumer Culture, and Environment. (5) Seminar, three hours. De- signed for College Honors students. Examination of waste in both real and virtual worlds, looking in interdisciplinary ways at various cultural representations of trash set against backdrop of society of excess and environment constantly threatened by overwhelming and mismanaged waste, including social and cultural responses to physical waste and cyber battle against Internet debris. P/NP or letter grading.

46. Drugs in Society: Interdisciplinary Perspectives on Drug Use, Abuse, Treatment, and Intervention. (5) Seminar, three hours. Examination of drug use and abuse and consequent social issues and policies both historically and in the contemporary U.S., including investigation of current research and sociological properties of different drugs and corresponding clinical interventions. P/NP or letter grading.

51. Music and Society. (5) Seminar, three hours. Minimal experience reading music desirable but not required. Analysis of Western art music, with focus primarily, but not exclusively, on music of late-19th through early-20th centuries through multiple analytical prisms: sociological, historical, political, and musical. P/NP or letter grading.

52. Culture and History of Utopia. (4) Seminar, three hours. Study of major utopian writings from Thomas More's classical text to recent ecological and feminist utopian texts, with purpose of uncovering social, intellectual, and cultural landscapes underlying quest for a more perfect society. P/NP or letter grading.

53. Language, Performance, and Culture. (5) Lecture, three hours. Mixture of lecture and discussion on topic of language and its relationship to performance and culture through the centuries. Study of major writers such as Sausurte, Wittgenstein, Stanley Cavell. Judith Butler, and others, playwrights such as Wilde, Stein, and Samuel Beckett, and films such as "His Girl Friday" and "Monkey Business." P/NP or letter grading.

54. Neuroscience and Psychology of Art and Biology of Aesthetics. (5) Seminar, four hours. Designed for College Honors students. Examination of multiple encounters between Greeks and Persians in antiquity, from origins of Achaemenid Empire through its conflicts with Greek world of Hellenistic, to Alexander's defeat of Darius III. Consideration of mutual constructions of other in antiquity, Near Eastern versus Greek testimonia, and art and archaeological evidence of these two civilizations. P/NP or letter grading.

55. Science and Religion from Copernicus to Darwinism. (5) Seminar, three hours. Designed for College Honors students. Examination of science and religion from Copernicus to Darwinism. P/NP or letter grading.

56. Personal Financial Health: Theory and Practice. (5) Seminar, three hours; fieldwork, four hours. Designed for College Honors students. Examination of personal financial health, allowing for broad discussion of larger theoretical picture of variables affecting economy and practical hands-on look at personal finance, including budgeting, debt, insurance, investing, and purchasing. Examination of variety of financial issues through three principal standpoints: psychology of finance, historical perspective of finance, and socioeconomic perspective of finance. P/NP or letter grading.

57. Conflicts between Languages. (5) Seminar, three hours. Designed for College Honors students. Study of conflicts between languages in the process of translation. P/NP or letter grading.

58. Conflicts of Language. (5) Lecture, three hours. Designed for College Honors students. Examination of conflicts between politics and rhetoric in the process of translation. P/NP or letter grading.

59. Cossacks and Narratives about Them. (5) Seminar, three hours. Study of Cossacks in narratives and their role in the Russian national imagination as it is expressed in such writers as Mark Twain, Fyodor Dostoevsky, and Leon Tolstoy. P/NP or letter grading.

60. Transcultural Studies. (5) Seminar, four hours; discussion, two hours; fieldwork, one hour. Examination of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. P/NP or letter grading.

61. Comparative Literature. (5) Seminar, three hours; workshop, one hour. Examination of topics in greater depth through supplemental readings, papers, or other activities led by lecture course instructor. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. P/NP or letter grading.

62. Honors Seminars. (5) Seminar, three hours. Designed as an advanced undergraduate seminar. May be taken for four honors credit units. P/NP grading.

63. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Eradicated as a course in the College Honors Program. P/NP grading.

64. Neuroeconomics and Psychology of Art and Biology of Aesthetics. (5) Seminar, three hours. Interdisciplinary study of the meaning of business, whether of facts, art works, or other subjects, is processed by brain and can be understood as neuroeconomics or biology of aesthetics. P/NP or letter grading.
101A. Student Research Courses. (2) Lecture, two hours. Designed to promote deep engagement in university research, including instruction on securing research opportunities, skills necessary for research and professional success, exploring research internships on and off campus, and communication of research. P/NP grading.

101B. UCLA Undergraduate Science Journal, (2) Seminar, two hours. For students on editorial board of annual UCL Undergraduate Science Journal, including study of writing in sciences and honing of editing and production skills. May be repeated for maximum of 10 units. P/NP grading.

101C. UCLA Undergraduate Journal for Humanities and Social Sciences, (2) Seminar, two hours. For students on editorial board of annual Aleph journal of undergraduate research and writing, including study of writing in various disciplines and honing of editing and production skills. May be repeated for maximum of 10 units. P/NP grading.

101D. Counseling Multicultural Communities. (2) Seminar, two hours. Study of issues of culture and identity in cross-cultural counseling, including development of working models. P/NP grading.

101E. Leading Undergraduate Seminars. (1) Seminar, one hour. Limited to students who have been accepted into Undergraduate Student Initiated Education (USIE) program. Learning and exploration of issues that are integral to developing seminars and development of skills to become effective student facilitators. Practical teaching strategies and techniques, as well as pedagogical, organizational, and technological issues confronted by new instructors. Discussion of key topics, followed by discussion of syllabus that help promote learning and the creation of conducting micro-teaching presentations. Guest speakers expand on topics that arise from class discussions. May be repeated once for credit. P/NP grading.

101F. Integrity in Research. (2) Seminar, two hours. Limited to students in CARE, HHMI, MARC, and UC Leads programs. Discussion about integrity in research, career and impostor issues that impact scientific investigation. P/NP grading.

101G. Graduate School Preparation. (2) Seminar, two hours. Limited to AAP students. Designed to help AAP students familiarize themselves with core academic disciplines they would like to pursue in graduate school. Through course readings, guest speakers, and interactive assignments, students learn more about their graduate school options and how to navigate application process. P/NP grading.

101I. Research Today: Sources, Tools, and Strategies. (2) Lecture, two hours: activity, two hours. Introduction to research in digital age, offering opportunity to develop research skills through exploration of library and Internet resources, exposure to rare and unique materials, experimentation with digital tools, utilization of expert interviews, and interactive creation of research proposal projects. Designed to prepare students for capstone or thesis research experience in humanities or social sciences. P/NP grading.

101J. Mellon Mays Research Seminar, (2) Seminar, two hours. Limited to current Mellon Mays Undergraduate Fellows and designed to support them in their current research projects and graduate school preparation. Topics include research methods, presentation skills, and interactive creation of research project proposals. Designed to prepare students for capstone or thesis research experience in humanities or social sciences. P/NP grading.

101K. Preparing for Post-UCLA Success: Fellowships, Graduate Schools, and More. (2) Seminar, two hours. Prepares students to achieve goals beyond UCLA. Participants reflect on values and interests, and learn what is required for effective applications to graduate school, scholarships, and more. Review of process of applying for nationally competitive awards such as Truman, Rhodes, Marshall, and others. Students learn to craft effective curricula vitae, strong personal statements, and compelling research proposals. Students learn to solicit strong letters of recommendation. Students learn to perform fellowships application process, as well as graduate school and job application process. P/NP grading.

102. Culture, Media, and Los Angeles. (6) (Same as African Studies M102 and Asian American M102) Lecture, four hours: screening, two hours. Designed for juniors/seniors. Role of media in society and its influence on contemporary cultural environment, including Los Angeles issues of representation as they pertain to race, ethnicity, gender, and sexuality. P/NP or letter grading.

103. Scientific Knowledge, Industrial Growth, and Social Policy. (5) Lecture, three hours: laboratory, two hours. Examination, using nanotechnology, of both benefits and risks to economy and society when new technologies are in process of development. P/NP or letter grading.

104. Fundamental Forms of Social Relationships from Theory to Research Design. (5) Seminar, three hours. Relational models theory posits that four elementary models organize social coordination, emotions, motives, and norms in virtually all domains and cultures. This seminar explores current theory, development of research questions, planning of study, design of its methodology, and writing of research proposal. P/NP or letter grading.

105. Racial and Ethnic Disparities in Healthcare. (5) Seminar, three hours. Examination of ways in which race and ethnicity impact delivery of healthcare in U.S. and discussion of policies and proposals to address disparities in healthcare. P/NP or letter grading.

106. Imaginary Women. (5) (Same as Gender Studies M106) Seminar, four hours. Designed for junior/senior College Honors students. Study of four female novelists: Dostoevsky, the Russian Incantation, the infanticide mother, intellectual woman, and warrior woman—as they appear in their classical and modern manifestations in European and American cultures. P/NP or letter grading.

107. Literature and Political Order: Homer, Shakespeare, Dostoevsky. (5) Seminar, three hours. Designed for College Honors students. Examination of political order and questions of violence, power, leadership, and ideological meanings of literary texts, specifically pedigreed by Homer, Julius Caesar and Henry IV, Part 1 by Shakespeare, and Brothers Karamazov by Dostoevsky. P/NP or letter grading.

108. American Literature and Civil Rights Movements of Washington, D.C. (5) Seminar, three hours. Exploration of public buildings, monuments, and heroic statues of Washington, D.C., inspired by memory and ruins of classical antiquity, and how these evocations have meaning today. Consideration ofobelisk, Greek temple, and Pantheon and American monumental counterparts, Washington Monument, Lincoln Memorial, and Jefferson Memorial. Examination of ancient inspirations, historical background, architectural design, and art of these monuments in context of shifting public ideologies and local politics in Washington. Public events and ideologically driven literary texts, specifically named by Homer, Julius Caesar and Henry IV, Part 1 by Shakespeare, and Brothers Karamazov by Dostoevsky. P/NP or letter grading.

109. Foreign Exchange Market and Exchange Rate Forecasting. (5) (Same as Economics M123.) Seminar, four hours. Introduction to forecasting of exchange rates. Students learn how real-world data through use of powerful computer platform called Translation of computer laboratory. Analysis of how foreign exchange market works, what financial instruments are used in this market, and what main theoretical determinants of exchange rates are. Generation of exchange rate forecasts by combining theoretical concepts with real-world data using concepts and techniques from computer science, linguistics, and statistics. How to write simple code to generate exchange rate forecasts and to evaluate accuracy of student forecasts. P/NP or letter grading.

110. Marxist and Post-Marxist Approaches to Cultural Studies. (4) Seminar, four hours. Examination of Marxist and post-Marxist approaches to study of culture, including classic texts of empirical works, and the Marxist roots of postmodernism. P/NP or letter grading.

111. Stress and Coping. (4) Seminar, four hours. Examination of research and theory on stress and coping, with emphasis on physical and mental consequences of stress and moderators of both social support and personality in coping strategies. P/NP or letter grading.

113. Hyperconnected World: Society and Internet. (5) Seminar, three hours. Designed for College Honors students. Exploration of social, political, economic, psychological, and cultural dimensions of our hyper-connected world via Internet. Topics include the transmutation of social relationships online, virtual versus real communities, identity and its creations, trust and deception, politics and social media, surveillance and privacy, economics, intellectual property, culture, education, and knowledge, and digital wellness. P/NP or letter grading.

114. Architecture from Los Angeles: Work of Frank Gehry, Thom Mayne, and Greg Lynn. (5) Seminar, three hours. Within last 30 years, architectural work originating in Los Angeles but reaching world both in material construction and aesthetic influence has emerged. Study of works of three seminal architectural studios, Gehry Partners, Mayne Architecture, Thom Mayne, and Greg Lynn. Site visits and hands-on practice in how to read architectural plans and how to use computers and modeling in architectural study and design. P/NP or letter grading.

115. Poetry and Society in England, 1558 to 1688: Verse, Politics, Religion, and Sexuality from Spanish Armada to Glorious Revolution. (5) Seminar, one hour. Designed for College Honors students. Poetry of England in century between 1588 and 1688 through prism of evolving political, philosophical, theological, sexual, economic, and scientific practices of that day and vice versa to understand poetry in cultural and historical context. Students research widely on range of subjects from alchemy to zoology and become class resource on some relevant topic such as Renaissance medicine, Calvinism, Scholasticism, Cromwell and New Model Army, Elizabethan foreign policy. Stuart architecture, architectural and dietary changes, and printing and publishing conventions. P/NP or letter grading.

116. Art Alive: Art and Imagination in Museums. (4) (Same as Theater M187.) Seminar, four hours. Offered in collaboration with Los Angeles County Museum of Art (LACMA). Interpretation of art through acting, dialogues, movement, and music. Recherche into history and art history and production of creative performance piece required. P/NP or letter grading.

117. London and Culture of Male Homosexuality, 1870 to 1900. (5) Seminar, four hours. Designed for College Honors students. Examination of male homosexual subculture that thrived in London during period when brilliant Irish writer Oscar Wilde (1854 to 1900) was sent to jail for committing acts of gross indecency. Study of Wilde trials, cultural consequences of Labouchere Amendment criminalizing male homosexual acts, some of Wilde’s writings, and exciting new writings that have come to light offering insight into links that gay men in London had with theatrical world, prostitution, aristocrats, and underground publishing. P/NP or letter grading.

meanings of birth. P/NP or letter grading.

Women, midwives, and medical men and cultural such themes as shifting relations among birthing hours. Using examples from history and anthropology, philosophical, social, and aesthetic philosophy of age is examined in musical and dramatic performances. Letter grading.

121. Psychoanalysis before Freud, and a Little After. (5) Seminar, three hours; discussion, one hour. Examination of different ways human beings have developed conceptions of themselves through history from early childhood to adulthood. examines scientific, scientific revolution, Enlightenment, origins of modern world, Freud's in de siècle Vienna, and post-Freudian visions; investigation of various interactions of these different conceptions in present day. P/NP or letter grading.

122. Chemical Communication across Tree of Life. (5) Seminar, three hours; discussion, two hours. Designed for College Honors students. Chemical communication among the most biological entities, across entire tree of life from viruses to Homo sapiens. Bioinspired devices are using knowledge gleaned from chemosensory systems to change face of modern society. Focus on applications in consumer industries, homeland security, and space exploration. Chemical, physical, and biological principles to be combined as pedagogical tools for teaching larger lesson in science. Synthesis of information and concepts across disciplines to develop student hypotheses and conclusions. P/NP or letter grading.


124. Midwives, Mothers, and Medicine: Perspectives on History of Childbirth. (4) Seminar, three hours. Historical and anthropological examination of variety of practices associated with childbirth over time and across cultures, addressing such themes as shifting relations among birthing women, midwives, and medical men and cultural meanings of birth. P/NP or letter grading.

125. Communities and Nations in Conflict: Theory, Conflict Resolution. (6) Lecture, three hours; discussion, one hour. Introduction to the theory and practice of conflict resolution with emphasis on international conflict. Transitional justice mechanisms, from internal criminal tribunals, special courts, and International Criminal Court to indigenous approaches such as community justice systems. Examination of environmental conflict resolution, homeland security and terrorism, role of gender in conflict, and role of media in conflict. P/NP or letter grading.

126. Waves of Resistance: Race, Empire, and Social Justice in Asia and Pacific Islands. (5) Seminar, three hours. Designed for College Honors students. Examination and comparison of recent and historical movements of racial violence, empire, and social justice in Asia and Pacific Islands. Global forces such as capitalism, colonialism, and globalization played significant role in cultural, political, and social organization of places such as American Samoa, Guam, Hawai‘i, Marshall Islands, Philippines, Okinawa, and South Korea. Exploration of how various groups of people have responded to these forces to have better understanding of how race, empire, and social justice have connected these distant and diverse areas and peoples. P/NP or letter grading.

127. Citizenship, Leadership, and Service. (4) Seminar, three hours; fieldwork, three hours. Interactive participation with citizens and civic organizations. Citizens and civic organizations, including both theoretical work in classroom and practical work in service organizations in the field. P/NP or letter grading.

128. What We Laugh Together: Humainistic, Social Scientific, and Biological Perspec-
tives. (5) Seminar, four hours. Designed for College Honors students. Application of venerable humanistic insights and analysis to contemporary social phenomenon of human laughter and humor. While Aristotle and Hobbes thought humor was bad for society, Locke and Bahktin would have disputed them for different reasons. Use of their ideas to critically evaluate how social scientists investigate mass media political satire of today, P/NP or letter grading.

129. Research in Psychology and Legacy of John Wooden. (5) Seminar, four hours. Designed for College Honors students. Study of John Wooden, with particular attention to his pyramid of success, how he was viewed and is remembered by his players, and relationship between his philosophy and academic research. His philo-
sophical approach as lens through which to explore in fields of sport and education psychology. Connects different elements of Coach Wooden’s pyramid (success) to players and coaching philosophy) to research in psychology. P/NP or letter grading.

130. Speeding the Cure: Can Activists Make a Difference? (5) Seminar, three hours. Examination of role that education plays in maintaining and perpetuating poverty and inequality. Examination of how various reform strategies that have been proposed to spur development of human capital and local development are impacting on the most vulnerable people worldwide and poor countries. Examination of how different countries have used education to promote social equality and development and analysis of why some countries appear to be making more progress than others. Consideration of how factors such as history, particularly related to colonialism, political economy, and culture affect character and performance of schools. P/NP or letter grading.

131. New Women and Activism from America to Asia. (5) Seminar, three hours. Designed for College Honors students. Spawning of academic disciplines and regional boundaries by looking at women’s movement. Examination of the 20th century, with examination of how issues of women’s rights, labor rights, and race/nation identities united and divided women across classes and national borders. Examina-
tion of suffrage movement in 1913 New York and parallel movements in East Asia (Japan, Korea, China) that adopted and adapted some of these same ideas to their own unique historical circumstances. Use of high school and college students to interpret historical role-playing game titled Greenwich Village, 1913: Suffrage, Labor, and New Woman. P/NP or letter grading.

132. Practice and Ethics of Ethnographic Fieldwork. (5) Seminar, three hours. Examination of ethics and practices of ethnographic fieldwork. This is not field methods course but one intended to convey rich knowledge fieldwork can produce in many disciplines and kinds of ethical issues raised in doing fieldwork. P/NP or letter grading.

133. Democracy and Utopias. (5) Seminar, three hours. Designed for College Honors students. Political culture of modern democracy fosters ideas of progress and constant reform and is also wary of radical up-
heavals. Political culture of ancient Greek democracy may hold two key lessons of having achieved unmatched superiority over any other so-

134. Democracy and Utopias. (5) Seminar, three hours. Designed for College Honors students. Political culture of modern democracy fosters ideas of progress and constant reform and is also wary of radical up-
heavals. Political culture of ancient Greek democracy may hold two key lessons of having achieved unmatched superiority over any other so-

135. Poetry and Society in England, 1588 to 1688. (5) Seminar, four hours. Reading and discussion of poems to comprehend meaning and place in configurations of rapidly transforming society. Tensions and changes in that culture, and lives of authors, these works helped negotiate. How and why metaphysical and cavalier modes emerge in which political, social, and aesthetic philosophy of age is examined in musical and dramatic performances. Letter grading.

136. Art, Entertainment, and Social Change. (5) Seminar, three hours. Integrative examination of how involving arts and entertainment industry on various aspects of society. Seminar, four hours. Examination of theoretical evolution of postcolonial transnational studies through predominantly American multilingual short story. How do our primary works in contemporary short fiction question literary conventions of allegedly modernism, white literature? What manifestations of empire, diasporic mobility, and generic mutability unite or separate our primary creative works? What manifestations on identity do our fiction and creative non-fiction works offer as they intersect notions of race, caste, class, gender, ethnicity, nation-

137. Living Dharma in America: Perspectives on Race and Buddhism. (5) Seminar, three hours. Examination of and deeper histories behind images of Buddhism such as bald, saffron-robed monks; or-

138. Empire, Globalization, and Multietnic Story-
telling. (5) Seminar, four hours. Exploration of theoretical evolution of postcolonial, diaspora, ethnic, and area studies? Could the multilingual short story be the socio-politically subver-
sive narrative genre par excellence? Close reading of short stories in comparative light with creative non-fic-
tion and hybrid narrative forms in works by Aimé Céaire, Aimé Céaire, Kamala Suraweera, Zora Wodehouse, and Charles Foucault to show relevance to contemporary politics. P/NP or letter grading.

139. Confucius and His Legacies. (5) Seminar, four hours. Examination of Confucianism, from War-
rning States period to popularization in 21st century. Con-

140. Dominants and Subordinates in Social Psy-
chology of Privilege and Oppression in Public Edu-
cation. (8) Lecture, four hours; discussion, one hour; tut-
orning, three hours. Study of social arrangements and temporary inequalities in contemporary American public school, showing how such entrenched inequal-
ities are translated into educational performance. Field component included. P/NP or letter grading.

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142. Free Will and Moral Responsibility: From Neuroscience to Philosophy and Back. (5) Seminar, four hours. Survey of methods, motivations, and conclusions of neuroscience and philosophy about the nature of freedom and moral responsibility. Discussion of extent to which philosophical investigations of free will inform neuroscience and whether and how experiments could be designed and carried out to better connect the two. Legal and legal debate on free will. P/NP or letter grading.

M143. Latino Immigration History and Politics. (4) (Same as Chicana and Chicano Studies M124.) Lecture, four hours. Overview of Mexican, Central American, and Latin American to U.S., examining social, political, and economic contexts out of which different waves of Latin American immigration have occurred. P/NP or letter grading.

144. International Development: Using Your Major For Doing Well and Doing Good. (5) Seminar, six hours. The adoption of the United Nations’ Sustainable Development Goals (2015) called for addressing extreme poverty, disease, environmental degradation, gender inequality, and other problems afflicting people across the globe. Sustainability entails development solutions that endure and engage local people. The aim is to leverage local capacities to improve living conditions consistently. Students address questions such as: How does your major relate to one or more of the goals? Which goal speaks to your interest? What key concept or passion do you have that connects to addressing one or more of the goals? P/NP or letter grading.


146. Imagining Global Climate Change. (5) Seminar, three hours. Designed for College Honors students. Global and comparative study of regions in front line of global climate change, such as tropical islands and polar regions that are impacted by global warming. Letter grading.

147. The Anthropocene: An Archaeological Perspective. (5) Seminar, four hours. Examination of new geological epoch, the Anthropocene, in which environment is profoundly impacted by human activities. Evidence that anthropogenic forces have affected conditions on Earth during past two centuries, especially burning of fossil fuels, ocean acidification, and ozone depletion. P/NP or letter grading.


149. Art and Trauma. (5) Seminar, three hours. Examination of how slavery, war, psychiatric institutionalization, and child sexual abuse shape singular artistic visions. Depictions of severe trauma can be expressed in several ways: (1) as trauma itself, (2) internal psychological process (e.g., depression), or symbolic unfolding (e.g., disintegration of individual). Manner in which trauma is embedded in brain and stored in memory is also critical. Exploration of research on memory and trauma, post-traumatic stress disorder (PTSD), and how severe trauma impacts brain. Studio component in form of individual and group projects to offer more tangible insight into process of art and trauma. P/NP or letter grading.

150. Solo Performer’s Toolbox: Storytelling for Artists and Storytellers. (5) Seminar, three hours. Designed for College Honors students. Exploration of personal, creative, and collaborative techniques for storytelling to better understand how individuals, communities, and culture shape the ways we tell stories and synthesize of this knowledge to benefit writing and performance. Identification and exploration of student’s unique personal voice in order to establish clear and creative point of view in developing or performing their story. Analysis of dramatic structure, dramatic action, and creation of believable and interesting character. Focus, concentration, imagination, and relaxation during their solo performance, and maintaining professionalism during and after performance. P/NP or letter grading.

151. Victorian Sexual Scandals. (5) Seminar, three hours. Designed for College Honors students. Introduction to four major sexual scandals that took place in London between 1885 and 1900. Understand ways in which institutions create frameworks for understanding dissident sexualities and gender identities, and relations between sexual scandals and legal actions. Semi-annual trips to Freud and Frederick Park. Examination of extent of queer networks among gay men, transgender individuals, and their apparently straight admirers during time of Offences against the Person Act 1861, The Maiden Tribute of Modern Babylonia, in which journalist W. T. Stead exposed extent of sexual trafficking of children. Series of murders in which bodies of women (several of whom were sex workers) were mutilated and disemboweled, attributed to Jack the Ripper. Trial of Oscar Wilde who was sent to jail for two years in solitary confinement with hard labor for gross indecency. P/NP or letter grading.

152. Past People and Their Lessons for Our Own Future. (5) (Same as Anthropology M148 and Geography M142.) Lecture, two hours; discussion, two hours. Examination of modern and past people that met varying fates, as background to examination of how modern other people are coping or failing to cope with similar issues. Letter grading.

153. Comedy in Literature. (5) Seminar, three hours. Intense discussion of work of literature, typically play, novel, or novella, as vehicle for development of humorous or satirical themes of charity, paternalism, and systems of dependence. P/NP or letter grading.

154. Political Opposition in Early Modern Europe. (5) Seminar, three hours. Designed for College Honors students. Examination of tradition of radical political movements from French Reformation to French Revolution. Topics include Machiavelli’s contributions to political thought, turmoil of 16th-century France and Dutch Republic and their radical underside of Protestant thought, French Wars of Religion, Dutch revolt against Spanish, English Civil Wars, and radical thought of European Enlightenment and its contributions to French Revolution. P/NP or letter grading.

M157. International Relations of Middle East. (4) (Same as Anthropology M159.) Lecture, three to four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Role of great powers in Middle East, with emphasis on American, Soviet, and West European policies since 1945. P/NP or letter grading.


163. China’s Rise: Critical Issues and Global Implications. (5) Seminar, four hours. Study of ascendency of China in 21st century, with emphasis on global implications. Aspects of Chinese development that lend themselves to comparative analysis, including labor, environment, nationalism, migration, inequality, rule of law, social movements and authoritarianism, state identity (China in an Asian context), and P/NP or letter grading.


166. Stories of Cultural Distance and Imposed Assimilation. (5) Seminar, four hours. Study of how fiction, memoir, and film have represented involuntary cross-cultural assimilation as seen from perspective of immigrant others, usually family members, coming to terms with their own and their relatives’ cultural identity. P/NP or letter grading.

168. Paris: Biography of City from 1715 to World War II. (5) Seminar, three hours. Designed for College Honors students. Exploration of history of Paris from death of Louis XIV to World War II. Study of consequences of rapid urbanization and reasons how Paris became fulcrum for political revolutions. Examination of Paris as focus of modernism, its rebulidng and design under Baron George Haussmann, impact of World War I and expat culture, and city’s housing crisis. P/NP or letter grading.

169. Imposture and National Identity. (5) Seminar, three hours. Cross-cultural approach to study of imposture (assumption of false identity) as window through which to examine cultural modernity and national identity. Study of literature, history, and film from Australia, United Kingdom, the U.S., Near East, and South Asia as way of trying to define both hypocrisy and creativity of imposture, and making philanthropic investments in Los Angeles-based nonprofit organizations serving people with disabilities. Letter grading.

171. Rationality and Emotions. (5) Seminar, three hours. Historical study of way in which philosophers, social theorists, and cognitive scientists have characterized relationship between rationality and emotions, culminating in emerging consensus that emotions can influence rational decision making. Readings range from philosophy of ancient Greeks to writings of contemporary neuroscientists. P/NP or letter grading.

172. French Thinkers of Society. (5) Seminar, four hours. In-depth study of distinguishing perspectives of French theorists who wrote on society and its impact on individuals. Theorists include Pascal, Rousseau, Marcel Mauss, and Emile Durkheim from early modern period, contemporary thinkers like Michel Foucault, Michel de Certeau, and Pierre Bourdieu, and two postmodern theorists, Guy Debord and Jean Baudrillard. P/NP or letter grading.

173. American Political Thought from Revolution to Civil War. (5) Seminar, three hours. Examination of nature of American political thought between Revolution and Civil War. Topics include nature of rights, feder-
173A. Liberty, Government, and Society in European Thought. (5) Seminar, three hours. Examination of great works of European thought from 17th through 18th centuries, including works of John Locke, Montesquieu, David Hume, Edmund Burke, and Thomas Payne, with emphasis on legal, social, and moral preconditions of liberty. P/NP or letter grading.

173B. Nature, Culture, and Capitalism in European Thought. (5) Seminar, three hours. Course 173A is not requisite to 173B. Designed for College Honors students. Examination of great works of European thought throughout the early 20th century, including works by Thomas Hobbes, Adam Smith, Jean-Jacques Rousseau, John Stuart Mill, and Max Weber, with emphasis on intellectual foundations of liberal democracy and capitalism. P/NP or letter grading.

174. Future Impact of Nano in New Technologies. (5) Seminar, four hours. Examination, for general audience, of science behind nanotechnology and way in which current potential influence medical care, environment, energy issues, military, government, and economics. Demonstration of how nano, like current technology, cannot be separated from ethical, cultural, political, and social issues. P/NP or letter grading.

175A. Terrorism, Counterterrorism, and Weapons of Mass Destruction: Practical Approach. (5) (Same as Epidemiology CM175S.) Seminar, three hours. Terrorism, its origins, and ways of addressing terrorism at local, national, and global levels. Guest speakers from variety of UCLA departments and from Los Angeles. P/NP or letter grading.

176A. Context of Arab World: Cairo and Alexandria. (4) Seminar, four hours; fieldwork, eight hours. Enforced corequisite: course 176B. Introduction to some of most important cultural, historical, and political currents in contemporary Arab world, with special focus on Cairo and Alexandria. Offered in summer only. P/NP or letter grading.

176B. Reading Arab World: Cairo and Alexandria. (4) Seminar, four hours; fieldwork, eight hours. Enforced corequisite: course 176A. Introduction to some of most salient literature in contemporary Arab world, with focus on Cairo and Alexandria. Offered in summer only. P/NP or letter grading.

177. Biotechnology and Art. (5) Seminar, six hours. Bioartists use cells, DNA molecules, proteins, and living tissues to bring to life ethical, social, and aesthetic issues of sciences. Study of how bioart blurs distinctions between science and art through combination of artistic and scientific processes, creating wide public interest. Exploration of history of biotechnology as well as social implications of this science. P/NP or letter grading.

178. Secret Coups, Imperial Wars, and American Democracy since World War II. (5) Seminar, three hours. Study of U.S. involvement, both overt and in expeditionary wars since World War II, in policy making of Western power and hegemony: rise of new science and its relationship first to Britain, then European, Industrial Revolution. Once seen as solely product of material factors such as abundant coal, high wages, and available labor, Industrial Revolution is shown as also possessing critically important knowledge of components, one portative culture derived from Newtonian science and mechanics. P/NP or letter grading.

M180. Structure, Patterns, and Polyhedra. (Same as Chemistry M117) Lecture, four hours; activity, two hours. Exploration of structures and their geometric underpinnings, with examples and applications from architecture (space frames, domes), biology (enzyme complexes, viruses), chemistry (symmetry, molecular cages), design (tiling), engineering (space filling), and physics (crystal structures) to effect working knowledge of symmetry, two-dimensional patterns, and three-dimensional solids. P/NP or letter grading.

M182. From Scientific Revolution to Industrial Revolution. (5) Seminar, four hours. Designed for College Honors students. Examination of most important development in making of Western power and hegemony: rise of new science and its relationship first to Britain, then European, Industrial Revolution. Once seen as solely product of material factors such as abundant coal, high wages, and available labor, Industrial Revolution is shown as also possessing critically important knowledge of components, one portative culture derived from Newtonian science and mechanics. P/NP or letter grading.

M183. Being Human: Identity in Age of Genomics and Neuroscience (Same as Disability Studies M163 and Society and Genetics M163S.) Seminar, three hours. Exploration of relationship between identity and mental illness through different approaches to nature and treatment of mental disorder, from biomedical accounts of brain-based pathology (and identity) to Mad Pride movement emphasis on mental diversity. Enabling philosophical questions regarding personal identity, consciousness, selfhood and mind-body relationship are investigated through consideration of conditions such as dissociative identity disorder, trauma, psychosis, autism, and depression. P/NP or letter grading.

184. Indian and Pakistan: Historic Roots of Conflict and Prospects for Cooperation. (5) Seminar, three hours. Designed for College Honors students. History of India and Pakistan from demise of British India’s Empire in mid-August 1947, with conquest of Punjab and Bengal and bifurcated Pakistan, to current state of both nations and their potential for conflict and cooperation. P/NP or letter grading.

188SA. Individual Studies for USIE Facilitators. (1) Tutorial, to be arranged. Enforced prerequisite: Honors College 101E. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor to discuss selected USIE seminar topic, conduct preparatory research, and begin preparation of syllabus. Individual contract with faculty mentor required. May not be repeated. Letter grading.

188SB. Individual Studies for USIE Facilitators. (1) Tutorial, to be arranged. Enforced prerequisite: course 188SA. Enforced corequisite: Honors College 101E. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor to finalize course syllabus. Individual contract with faculty mentor required. May not be repeated. Letter grading.

188SC. Individual Studies for USIE Facilitators. (2) Tutorial, to be arranged. Enforced prerequisite: course 188SB. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor while facilitating USIE 88S course. Individual contract with faculty mentor required. May not be repeated. Letter grading.

189. Advanced Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to undergraduate lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

189HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to upper-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

193A. Journal Club Seminars. (2) Seminar, two hours; discussion, two hours. Study of key research journals and important research articles. Presentations by program faculty members and other leading researchers. May be repeated for credit. P/NP grading.

193B. Journal Club Seminars: Arts and Humanities Summer Research Program. (2) Seminar, one hour; discussion, one hour. Limited to students selected for Humanities Summer Research Program. Study of humanities research journals and monographs. Weekly student research reports and presentations by humanities faculty members. May be repeated for credit. P/NP grading.

193C. Journal Club Seminars: Mellon Mays Undergraduate Research Scholars. (2) Seminar, one hour; discussion, one hour. Limited to Mellon Mays undergraduate fellows. Study of key research journals and important research articles in arts, humanities, and social sciences. Weekly research reports and presentations by Mellon Mays students. Presentations by program faculty members and other leading researchers. P/NP grading.

199. Directed Honors Studies. (4) Tutorial, two hours. Preparation: minimum of 4 units completed in Honors College with grade of B or better, overall UCLA grade-point average of 3.0 or better. Special research/reading tutorial with director of one Honors College course to pursue in greater depth significant topics from the college course. May be repeated for credit. P/NP or letter grading.
Graduate Degrees

The Department of Human Genetics offers Master of Science (MS) degree in Genetic Counseling, and Master of Science (MS) and Doctor of Philosophy (PhD) degrees in Human Genetics. An MD/PhD program is also offered.

Human Genetics

Scope and Objectives

The goal of the graduate program is to train the next generation of leaders in human genetics. This broad and rapidly evolving field of research incorporates multiple areas of modern experimental biology (including but not limited to molecular and behavioral genetics, epigenetics, biochemistry, cell and developmental biology, imaging, and large-scale omics approaches such as genomics, transcriptomics, and functional genomics) and of computational biology (including bioinformatics and biostatistics). In their research, students tackle Mendelian diseases and genetically complex traits of key relevance to human health.

A wide variety of courses is offered to equip future independent researchers with fundamental knowledge about state-of-the-art methods for generating experimental data on a genome-wide scale and computational and statistical approaches to draw from the data sound conclusions of biological and medical significance. In addition, courses on medical and ethical issues provide students with a societal perspective on human genetics.

The program offers the MS and PhD degrees; graduate study leading to a PhD degree is emphasized. Under special circumstances, and only after consultation with and approval by the Department of Human Genetics, individuals may apply for admission to the MS program.

Graduate students are expected to demonstrate integrity, creativity, critical thinking, perseverance, motivation, and determination to work hard; effective and appropriate oral and written communication skills needed for scientific presentation of the data including content, organization, logical flow, grammar, vocabulary, and proper citations; and the ability to design, revise, create, and implement experimental protocols and computational programs. They learn topics including transfer of biological information in a living organism, how genotype affects phenotype (subsuming environment), genetic variation in population, principles of research in genetics and genomics; and themes including evolution of thought in genetics and genomics history, how genetic informs disease and vice versa, genomics and integrating current tools in genomics research (statistical analysis, big data, and bioinformatics), and analysis in genetics and genomics.

Graduate Study

Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Division website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Graduate Degrees

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current interest, important to faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

99. Student Research Program. (1 to 2) Tutorial (supervised research or other scholarly work), three hours per week per unit. Entry-level research for lower-division students under guidance of faculty mentor. Students must be in good academic standing and enrolled in minimum of 12 units (excluding this course). Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP grading.

Upper-Division Courses

CM124. Machine Learning Applications in Genet- ics. (4) (Same as Computer Science CM124.) Lecture, four hours; discussion, two hours; outside study, six hours. Requisites: Computer Science 32 or Program in Computing 10C with grade of C– or better, Mathematics 33A, or Statistics 100A. Designed for engineering students as well as students from biological sciences and medical school. Introduction to computational analysis of genetic variation and computational interpretation in genetics. Topics include introduction to genetics, identification of genes involved in disease, inferring human population history, technologies for obtaining genetic information, and genetic sequencing. Focus on formulating interdisciplinary problems as computational problems and then solving those problems using computational techniques, Human Genome Project influence on medicine and computer science. Concurrently scheduled with course CM224. Letter grading.

CM136C. Societal and Medical Issues in Human Genetics. (5) (Same as Society and Genetics M102.) Lecture, three hours; discussion, two hours. Sequence of entire human genome is known. Consideration of how this knowledge impacts concepts of ourselves as individuals and of our place in biological universe, conceptual relationships, with particular attention to areas where conditions for deterministic models are inadequate. Examples of stochastic models from genetics, physiology, ecology, and variety of other biological and medical disciplines. S/U or letter grading.

M207A. Theoretical Genetic Modeling. (4) (Same as Biomathematics M207A and Biostatistics M272.) Lecture, three hours; discussion, one hour. Requisites: Mathematics 115A, 131A, Statistics 100B. Mathematical models in statistical genetics. Topics include population genetics, genetic epidemiology, gene mapping, design of genetics experiments, DNA sequence analysis, and molecular phylogeny. S/U or letter grading.

M207B. Applied Genetic Modeling. (4) (Same as Biomathematics M207B and Biostatistics M237.) Lecture, three hours; laboratory, one hour. Requisites: Biomathematics 200B, 202B (may be taken concurrently) or equivalent coursework or consent of instructor. Covers basic genetic concepts (prior knowledge of human genetics not required). Topics include statistical methodology underlying genetic analysis of both quantitative and qualitative complex traits. Laboratory for hands-on computer analysis of genetic data; laboratory reports required. Course complements M207A; students may not take both. S/U or letter grading.

210. Topics in Genomics. (2) Seminar, two hours. Survey of current biological theory and technology used in genomic research. Topics include genomic technologies, functional genomics, proteomics, statistical genetics, bioinformatics, and ethical issues in human genetics. S/U grading.

M211. Mathematical and Statistical Phylogenetics. (4) (Same as Biomathematics M211 and Biostatistics M239.) Lecture, three hours; laboratory, one hour. Theoretical models in molecular evolution, with focus on phylogenetic techniques. Topics include evolutionary tree reconstruction methods, studies of viral evolution, phylogenetics, and comparative genomics. Exam- ples from evolutionary biology and medicine. Labora- tory for hands-on computer analysis of sequence data. S/U or letter grading.

CM224. Machine Learning Applications in Genet- ics. (4) (Same as Bioinformatics M224 and Computer Science CM224.) Lecture, four hours; discussion, two hours; outside study, six hours. Requisites: Computer Science 32 or Program in Computing 10C with grade of C– or better, Mathematics 33A, and one course from Civil Engineering 110, Electrical and Computer Engineering 131A, Mathematics 170A, or Statistics 100A. Designed for engineering students as well as students from biological sciences and medical school. Introduction to computational analysis of genetic variation and computational interpretation in genetics. Topics include introduction to genetics, identification of genes involved in disease, inferring human population history, technologies for obtaining genetic information, and genetic sequencing. Focus
on formulating interdisciplinary problems as computa-
tional problems and then solving those problems using computational techniques from statistics and computer science. Concurrently scheduled with course CM124. Letter grading.

M226C. Machine Learning in Bioinformatics. (4) (Same as Biology M226B and Computer Science M226C.) Lecture, four hours; outside study, eight hours. Enforced requisite: Computer Science 32 or Program in Computing 10C with grade of C– or better. Recommended: one course from Biostatistics 100A, 110A, Civil Engineering 110, Electrical Engineering 131A, Mathematics 170A, or Statistics 100A. Familiarity with probability and linear algebra, and algorithms expected. Designed for engineering students as well as students from biological sciences and medical school. Biology has become data-intensive science. Bottleneck in being able to make sense of biological processes has shifted from data generation to statistical models and inference algorithms that can analyze these datasets. Statistical machine learning provides important toolkit in this endeavor. Biological datasets offer new challenges to field of machine learning. Examination of statistical and computational aspects of machine learning techniques and their application to key biological questions. Letter grading.

M228S. Seminar: Current Topics in Bioinformatics. (4) (Same as Biological Chemistry M228S and Computer Science M228S.) Seminar, four hours; outside study, eight hours. Designed for graduate engineering students with interests from biological sciences and medical school. Introduction to current topics in bioinformatics, genomics, and computational genetics and preparation for computational interdisciplinary research. Topics: Next generation sequencing, single-cell genomics, transcriptomics, functional genomics, epigenetics, and stem cells. Includes original research articles and reviews or book chapters. Letter grading.

M236A. Advanced Human Genetics A: Molecular Aspects. (5) Lecture, four hours. Recommended prerequisites: one course from Biostatistics or Statistics 101. Familiarity with genomic mapping. Selected regions of human genomic map scrutinized in detail, particularly gene families and clusters of genes that have remained linked from mouse to man. Discussion of localization of disease genes. Letter grading.

M260A. Introduction to Bioinformatics. (4) (Same as Bioinformatics M221, Chemistry CM260A, and Computer Science CM221.) Lecture, four hours; discussion, two and one half hours; outside study, seven hours. Introduction to computational approaches in bioinformatics, genomics, and computational genetics and preparation for computational interdisciplinary research in genetics and genomics. Topics include gene analysis, regulatory genomics, association analysis, association study design, isolated and admixed populations, population substructure, human genetic data analysis, model organisms, and genomic technologies. Computational techniques include those from statistics and computer science. Letter grading.

282. Topics on Scientific Careers. (2) Lecture, two hours. Limited to graduate students. Covers topics related to scientific writing and presentation (including to non-scientific audiences), grant writing and reviewing, curricula vitae, hiring process, social media usage, developing short- and long-term goals, and balancing career and non-work life. Exploration of roles in industry, government, teaching-college, and research-college careers. Active participation and oral and written presentations required. S/U or letter grading.

400A. Principles and Practices in Medical Genetics 1. (3) Lecture, three hours. Limited to Genetic Counseling students and open to medical genetics, molecular and cytogenetics fellows with permission. First course in three-course series. Focus on medical approaches to clinical genetics. Topics include molecular basis of genetic disease, modes of inheritance, principles of cytogenetics and molecular technologies, disorders of chromosomes, and fundamentals of prenatal diagnosis and screening. Addresses application of medical and genetic information to genetic counseling. Includes lectures, problem-based learning scenarios, and written reflections. Grand Rounds/Seminar series attendance is required component. Letter grading.

400B. Principles and Practices in Medical Genetics 2. (3) Lecture, three hours. Limited to Genetic Counseling students and open to medical genetics, molecular and cytogenetics fellows with permission. Second course in three-course series. Focus on medical approaches to clinical genetics. Topics include cancer genetics, principal and population genetics, multifactorial inheritance, risk assessment, teratology and dysmorphology. Addresses application of medical and genetic information to genetic counseling. Includes lectures, problem-based learning scenarios, examinations, and written reflections. Grand Rounds/Seminar series attendance is required component. Letter grading.

400C. Principles and Practices in Medical Genetics 3. (3) Lecture, three hours. Limited to Genetic Counseling students, and open to medical genetics, molecular and cytogenetics fellows with permission. Third course in three-course series. Focus on medical approaches to clinical genetics. Topics include overview of various pediatrics, adult-onset and biochemical genetic disorders, newborn screening, and current treatments of genetic disorders. Addresses application of medical and genetic information to genetic counseling. Includes lectures, problem-based learning scenarios, examinations, and reflections. Grand Rounds/Seminar series attendance is required component. Letter grading.

401. Fundamental Genetic Counseling Skills. (4) Lecture, four hours. Limited to Genetic Counseling students. Introduction to profession of genetic counseling. Addresses fundamental genetic counseling skills and structure of genetic counseling session using didactic and active learning techniques, including role-plays, supplemented by activities in clinical settings. Topics include history of profession, theories of psychosocial counseling and its principles including reciprocal-engage model of genetic counseling, active listening, verbal and non-verbal communication, interpretation, interventions, self-disclosure and self-involving skills, and structure of genetic counseling session. Practical exercises and supplementary activities address constructing genetic counseling session, obtaining family history, drawing and interpreting pedigrees, interview techniques, assessing level of patient and family understanding, case preparation, risk communication, development of educational materials, and referrals. General Genetics Case Conference attendance and clinic observations are required component. Letter grading.

402. Reproductive Genetics in Practice. (4) Lecture, four hours. Limited to Genetic Counseling students. Focus on reproductive genetic counseling. Reproductive topics include prenatal screening and prenatal diagnosis, invasive and non-invasive procedures, teratogens, ultrasound findings, carrier screening, infertility assessment, preimplantation genetic diagnosis, and in vitro fertilization, reproductive options. Practical exercises include case preparation, medical and family history analysis, risk assessment and counseling, differential diagnosis development, diagnostic testing selection (including analytic validity, clinical validity, and clinical utility of screening and diagnostic tests), results interpretation, patient education, and psychosocial counseling specific to perinatal setting. General Genetics Case Conference attendance and clinic observations are required component. Letter grading.

403. Specialty Genetics in Practice. (4) Lecture, four hours. Limited to Genetic Counseling students. Focus on specialty genetics topics including cancer, cardiogenetics, and neurogenetics. Exploration of aspects of these disciplines in context of genetic counseling. Discussion of impact of our growing knowledge of both common and rare genotypic etiology on risk assessment, clinical management, and genetic counseling. Practical exercises include case preparation, medical and family history analysis, risk assessment and counseling, differential diagnosis development, diagnostic testing selection (including analytic validity, clinical validity, and clinical utility of diagnostic and predictive tests), results interpretation, patient education, and psychosocial counseling specific to cancer genetics, cardiogenetics, and neurogenetics. Patients as guest speakers offer patient perspectives and experience. Letter grading.

404. Advanced Genetic Counseling Skills. (4) Lecture, four hours. Requisite: at least four hours visiting/observing/shadowing at least two resources centers and at least four hours observing bereavement group(s) in past year. Limited to Genetic Counseling students. Focus on advanced psychosocial topics. Genetic counseling and social and legal issues in genetics and genetic counseling. Topics include family dynamics, burden of disease, crisis intervention, dynamics of grief and bereavement, multi-cultural sensitivity, coping, and transference and countertransference, and disability organizations and advocacy. Practice exercises include role-playing in range of advanced psychosocial situations, shad-

410. Translational Genomics. (3) Lecture, two hours. Limited to Genetic Counseling students, and open to medical genetics, molecular and cytogenetics fellows with permission. Introduction to next generation sequencing (NGS) technologies, bioinformatics pipelines for analyzing NGS data, clinical interpretation of variants using ACMG guidelines, various databases used for variant interpretation, interpretation of exome clinical report, process of communicating results to patients and ethical, legal, and social implications (ELSI) of personal genetics. Offers hands-on laboratory-style experience to interpreting human exome/genome variants for genetics professionals and trainees. Students acquire necessary background to understand technical and analytical aspects of exome/genome test, make informed decisions about clinically relevant variants, and communicate results to patient or patient’s family. Attendance at weekly Genome Data Board meeting is required. Letter grading.

411. Foundations in Genetic Counseling Research. (2) Lecture, two hours. Limited to Genetic Counseling students. First of two-course series. Overview of research process, including literature review, research design, measurement methods, qualitative methods, and quantitative methods. Includes theory and elements of statistical analysis, data coding, data analysis tools, and interpretation of statistical results. Introduction to necessary tools to understand published research in genetic counseling and foundations necessary for design, conduct, and interpretation of their capstone project. How to conduct human subjects research responsibly and understand informed consent process. Letter grading.

412. Research Applications in Genetic Counseling. (2) Lecture, two hours. Enforced requisite: course 411. Limited to Genetic Counseling students. Second of two-course series. Practical hands-on approach to conducting research. Focus on specific aspects of study design and sampling, elements of developing and using instruments to measure variables of interest, criteria for systematic literature review, appropriate univariate and multivariate analyses, and interpretation and report writing. Focus on skills students need to develop and conduct their capstone projects and research in genetic counseling. Students develop ideas for their capstone project, develop research question, and submit research proposal for final project. Letter grading.

430. Clinical Applications of Cytogenetics and Molecular Techniques. (1) Lecture, one hour. Cytogenetics and molecular laboratory techniques to diagnose human genetic disorders. Topics include types of abnormalities seen in human genetic disorders, phenotypic consequences associated with these abnormalities, recurrence risks, uses and limitations of common cytogenetic and molecular technologies in clinical testing, current nomenclature, and written components of laboratory reports. Includes laboratory tours. Letter grading.

431A. Fieldwork. (1) Fieldwork, three to four hours; discussion, one hour. Limited to Genetic Counseling Students. First fieldwork rotation to establish basic skills in genetic counseling. Students are supervised by certified genetic counselors and medical geneticists. In group discussion setting, students present cases along with relevant psychosocial, ethical, and professional issues to engage in active reflection of clinical supervision experiences, understand dynamics and responsibilities of supervisor/supervisee relationship, and identify personal growth opportunities and limitations in scope of patient practice. S/U grading.


531C. Fieldwork. (5) Fieldwork, 15 to 20 hours; discussion, one hour. Requisite: course 431B. Limited to Genetic Counseling Students. Students use progressive genetic counseling skills with direct patient contact in different clinical settings. Students are supervised by certified genetic counselors and medical geneticists. In group discussion setting, students present cases along with relevant psychosocial, ethical, and professional issues to engage in active reflection of clinical supervision experiences, understand dynamics and responsibilities of supervisor/supervisee relationship, and identify personal growth opportunities and limitations in scope of patient practice. S/U grading.

596. Directed Individual Study and Research. (2 to 12) Tutorial, to be arranged. Individual study or research for graduate students. May be repeated for credit. S/U grading.

597. Preparation for MS Comprehensive Examination or PhD Qualifying Examinations. (2 to 12) Tutorial, to be arranged. Individual study for MS comprehensive examination or PhD qualifying examinations. May be repeated for credit. S/U grading.

598. MS Thesis Research and Writing. (2 to 12) Tutorial, to be arranged. Preparation of research data and writing of MS thesis. May be repeated for credit. S/U grading.

Indo-European Studies
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Indo-European Studies
310-825-4171
Brent H. Vine, PhD, Chair

Faculty Committee
David M. Goldstein, PhD (Linguistics)
Stephanie W. Jamison, PhD (Asian Languages and Cultures)
Christopher M. Stevens, PhD (Germanic Languages)
Brent H. Vine, PhD (Classics)

Scope and Objectives
The primary focus of the interdisciplinary Indo-European Studies program is the study of the ancient Indo-European languages and of their reconstructed ancestor, Proto-Indo-European, based on methods drawn from comparative-historical, theoretical, and computational linguistics. Goals of this study include the reconstruction of the Proto-Indo-European language, elucidating its subsequent development into the historical Indo-European languages, and showing how data from the archaic Indo-European languages contribute to a theory of language. There is also attention to other aspects of the nonmaterial culture of the speakers of Proto-Indo-European (such as social structure, religious beliefs, mythology, and poetics), and how these are reflected in the textual traditions of the ancient Indo-European languages.

Graduate Study
Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Division website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Graduate Degrees
The Indo-European Studies program offers Master of Arts (MA), Candidate in Philosophy (CPhil), and Doctor of Philosophy (PhD) degrees in Indo-European Studies.

Indo-European Studies Lower-Division Courses
19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.


M70. Language and Evolution. (5) Same as Linguistics M4. Lecture, four hours; discussion, one hour (when scheduled). Basic concepts and tools of evolutionary theory and linguistics relevant to how organisms with linguistic abilities could evolve, and how particular languages, as cultural artifacts, survive and change so rapidly. P/NP or letter grading.

89. Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to lower-division lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

89HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to lower-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

99. Student Research Program. (1 to 2) Tutorial (supervised research or other scholarly work), three hours per week per unit. Entry-level research for lower-division students under guidance of faculty mentor. Students must be in good academic standing and enrolled in minimum of 12 units (excluding this course). Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP grading.

Upper-Division Courses
131. European Archaeology, Neolithic to Bronze Age. (4) Lecture, four hours. Survey of European cultures from beginning of food-producing economy in 7th millennium BC to beginning of Bronze Age in 3rd millennium BC. P/NP or letter grading.

132. European Archaeology, Bronze Age. (4) Requires completion of 131. Survey of European cultures from around 3000 BC to the period of destruction of the Mycenaean culture about 1200 BC. Aegean area and rest of Europe.

140. Food in Language and Myth. (4) Lecture, three hours; discussion, one hour. Introduction to study of food in fields of linguistics and mythology. What is special about language used to talk about food, what is history of food words, and how does language impact appreciation of food? How do myths and narratives revolving around food function in different cultures? Students explore history of food words and learn how to analyze food myths. Students become aware of how language in food is manipulated and how to tell more effective stories about food. P/NP or letter grading.

M150. Introduction to Indo-European Linguistics. (5) Same as Linguistics M150. Lecture, four hours; discussion, one hour (when scheduled). Enforced requisites: Linguistics 1 or 20. Indo-European languages (ancient and modern), including their relationships, characteristics, within historical and sociolinguistic contexts; nature of reconstructed Indo-European proto-language and proto-culture. One or more Indo-European languages may be investigated in detail. P/NP or letter grading.

C160. Indo-European Comparative Mythology and Poetics. (4) Seminar, three hours. Preparation: familiarity with at least one ancient Indo-European language. Comparison of major Indo-European mythological and poetic traditions and reconstruction of those traditions, divinities and their names; symbolic systems in social context; myths, folk narratives, belief systems; relations with other traditions; literary continuations of mythopoetic material. Concurrently scheduled with course C260. P/NP or letter grading.

M168. Introductory Hittite. (4) Same as Ancient Near East M168. Lecture, two hours; recitation, one hour. Recommended preparation: knowledge of language with case system. Introduction to Hittite grammar by series of graded lessons covering morphology and syntax, followed by readings of selected texts from variety of genres in transliteration. P/NP or letter grading.

189. Advanced Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to undergraduate lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

189HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to upper-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

199. Special Studies. (2 to 8) Tutorial, to be arranged. P/NP or letter grading.

Graduate Courses


250A-250B. European Archaeology. (4–4) Seminar, three hours. Studies in ancient European archaeological materials and their relationship to Near East, Western Siberia, and Central Asia. May be repeated for credit. In Progress (250A) and S/U or letter (250B) grading.

C260. Indo-European Comparative Mythology and Poetics. (4) Seminar, three hours. Preparation: ability to read original sources in at least one ancient Indo-European language. Comparison of major Indo-European mythological and poetic traditions and recon-
Introduction to Information Studies. (3) Lecture, three hours; discussion, one hour. Designed for seniors/juniors. Selected topics or issues related to social, cultural, economic, or political aspects of information and information systems. Consult Schedule of Classes for topics and instructors. May be repeated once for credit with topic change. P/NP or letter grading.

Scope and Objectives
The Department of Information Studies has one of the top-ranked programs of its kind in the country and has developed an international reputation in the areas of information policy, information-seeking behavior, user interface development, archives, preservation, and cataloging. Whether students choose to pursue a master’s degree or a PhD, they graduate with a broad understanding of both theory and practice.

Students with master’s degrees go on to careers as librarians, archivists, and information professionals in a variety of organizational settings. The PhD focuses on the preparation of scholars in the field. For information about the department and programs, see the department website.

Graduate Study
Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Division website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Graduate Degrees
The Department of Information Studies offers the Master of Library and Information Science (MLIS) degree and the Doctor of Philosophy (PhD) degree in Information Studies.

One concurrent degree program (Library and Information Science MLIS/Management MBA) and one articulated degree program (Library and Information Science MLIS/Latin American Studies MA) are also offered.

Information Studies

Lower-Division Courses
10. Information and Power. (5) Lecture, five hours. Designed for undergraduates. Introduction to core concepts of information and power and relation between them in range of social, economic, political, cultural, technological, and institutional contexts. Topics include information markets and economies; power of cultural and media institutions; state interests in information; information, conflict, and warfare; information organization, classification, and access; power and information technology infrastructure; and intellectual freedom. Letter grading.

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

20. Digital Culture and Society. (9) Lecture, five hours. Designed for undergraduate students. Examination of social and cultural contexts of global spread of digital networks and systems. Exploration of ethical, infrastructural, and political questions raised at intersection of technologies and cultures. Topics include social media revolutions, indigenous and non-Western uses of technology, cross-cultural design, digital media literacies, and more. Letter grading.

30. Internet and Society. (6) Lecture, five hours. Designed for undergraduate students. Examination of information technology in society, including Internet, World Wide Web, search engines (e.g., Google, Yahoo, Lycos), retrieval systems, electronic publishing, and distribution of media, including newspapers, books, and music. Exploration of many of these technologies, social, cultural, and political context in which they exist, and how social relationships are changing. Letter grading.

89. Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to lower-division lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

97. Variable Topics in Information Studies. (4) Seminar, four hours. Designed for freshmen/sophomores, but open to all undergraduate students. Exploration of changing set of basic concepts and issues in study of information, information technology, and society and culture at introductory level. May be repeated for credit with consent of instructor. Letter grading.

99. Student Research Program. (1 to 2) Tutorial (supervised research or other scholarly work), three hours per week per unit. Entry-level research for lower-division students under guidance of faculty mentor. Students must be in good academic standing and enrolled in minimum of 12 units (excluding this course). Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP grading.

Upper-Division Courses
139. Letterpress Laboratory. (1) Laboratory, one hour. Hands-on printing experience in letterpress shop designed to give students in information studies, design, or other disciplines understanding of printing process. Basic instruction provided, and students work on group project for duration of term. May be repeated twice. P/NP grading.

180. Special Topics in Information Studies. (4) Lecture, three hours; discussion, one hour. Designed for juniors/seniors. Selected topics or issues related to social, cultural, economic, or political aspects of information and information systems. Consult Schedule of Classes for topics and instructors. May be repeated once for credit with topic change. P/NP or letter grading.

188SA. Individual Studies for USIE Facilitators. (1) Tutorial, to be arranged. Enforced corequisite: Honors Collegium 101E. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor to discuss selected USIE seminar topic, conduct preparatory research, and begin preparation of syllabus. Individual contract with faculty mentor required. May not be repeated. Letter grading.

188SB. Individual Studies for USIE Facilitators. (1) Tutorial, to be arranged. Enforced corequisite: course 188SA. Enforced corequisite: Honors Collegium 101E. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor to finalize course syllabus. Individual contract with faculty mentor required. May not be repeated. Letter grading.
200. Information in Society. (4) Lecture, two hours; discussion, two hours. Examination of processes by which knowledge is created, evaluated, disseminated, organized, used, and preserved. Topics include history of communication technologies, evolution of literacy, development of information professions, and social issues related to information access. Letter grading.

201. Ethics, Diversity, and Change in Information Professions. (4) Lecture, two hours; discussion, two hours. Service learning course that serves as forum to discuss, learn, and understand ethical challenges of multicultural information society that shape societal, professional community, and individual views and impact professional practice, decision making, and public policy. Letter grading.

202. History of Books and Literacy Technologies. (4) Lecture, two hours; discussion, 90 minutes. Issues in history of books, writing, and literacy technologies. Investigation of invention of writing, diverse cultural concepts of literacy, earliest use of systematic notation systems in Mesopotamia, and current development of devices and practices that shape contemporary concepts of book of future. Discussion of historical development of technology (tablets, scrolls, codices, illumination and illustration techniques, paper and mass production, photography, digital tools), institutions, and publishing industry, cultural issues and politics (publishing, censorship, colonialism, globalization), formats and styles (type design, graphic design, aesthetics), and some important aspects of book history, caused Western traditions, but not to exclusion of developments in Asia, Near East, Islamic empire, and elsewhere, and questions of cultural diffusion and diversity encircled by faculty mentor. Culminating paper or project required. May be repeated for credit. Individual contract required. Letter grading.

Graduate Courses


206. Introduction to Economics of Information. (4) Seminar, three and one half hours. Introduction to key concepts, scholars, and studies in economics of information are analytical tools and measures of information, information industries and markets, public goods theories of knowledge and information, information externalities, information property regimes, information and economic development, information work and occupations, information and organizational processes, productivity paradox, and sectoral analyses of national and global information economies. Letter grading.


209. Perspectives on Information Societies. (4) Seminar, two hours; discussion, two hours. Historical and theoretical perspectives on emergence of late-20th- and early-21st-century information societies from range of disciplines. Topics include nature of social change and development, theories of modernity and postmodernity, and sociological, sociocultural, and cultural shifts associated with information technologies and rise of information as commodity. Presentation of work of key writers and scholars in areas of information society and policy issues. Letter grading.

210. Global Media and Information. (4) Lecture, three and one half hours. Question of what diversity and culture mean in era of distributed networks and transnational movements. We will examine how this involves problem of how to work with differing ways of knowing, with differing ontologies. It is now widely accepted that global cultures and communities differ in ways they organize knowledge, with differing ontologies, and making meaning of their worlds. How we draw boundaries around culture and community has become increasingly complicated, as culture becomes increasingly integrated, as culture becomes increasingly mediated and community has elements of local place and global imagination. How are political, economic, and cultural identities being shaped in global media culture? How does this shape nature of how power functions? How does this impact heritage, economy, politics, and identity? Letter grading.

211. Artifacts and Cultures. (4) Lecture, two hours; discussion, two hours. Exploration of social, cultural, and technical practices through which meanings, memories, ideas, and objects are generated and interrelated. Concepts are recorded, reproduced, mediated, collected, and appropriated; they are sometimes forged, stolen, or subverted and are often shared, juxtaposed, exhibited, communicated, interpreted, reinterpreted, and repurposed. Their formats may be oral and written, verbal and pictorial, aural and visual, and inscriptive and performative. Artifacts are single-multiple units that may be dynamic, numeric, narrative, and cultural and popular, and analog and digital. They constitute documents, records, data sets, and cultural objects through which information and knowledge are created, disseminated, preserved, and accessed. Examination of these artifacts and their properties, types, and relationships: media, formats, genres, materials, states, contexts, and systems. Exploration of structural functions, aesthetic qualities, roles, costs, affordances, and use values. Letter grading.

212. Values and Communities in Information Professions. (4) Lecture, two hours; discussion, two hours. Forum to discuss, understand, and critique value systems and power structures embedded in information and work in diverse societies. Exploration of importance of thinking about boundaries, in design, evaluation, and engagement with information institutions and technologies, ranging from archives and libraries to Internet. Aspects of information society that shape and are shaped by cultural, societal, professional, community, and individual values, including exploration of impact of such values on professional practice, decision making, and public policy. Letter grading.

213. Current Issues in Librarianship. (4) Lecture, two and one half hours; discussion, one hour. Overview of historical and evolving conceptual foundations of librarianship, including logistics, key practices, social context of library services, and current issues in library studies. S/U or letter grading.

214. Informatics: Principles and Practices. (4) Lecture, three and one half hours. Theories, principles, and professional practices of informatics, including social analysis of information systems, values and design, infrastructural dynamics, user experience, and prospective analysis. S/U or letter grading.

215. Information Services in Culturally Diverse Communities. (4) Lecture, four hours. Issues in provision of information services in multicultural and multilingual society. Understanding role of information institutions in promoting cultural diversity and preserving ethic heritages. Letter grading.


236. Approaches to Materialities of Texts and Media. (4) Seminar, two hours; discussion, 90 minutes. Introduction to traditional and current thinking about materialities of texts, books, documents, and digital print artifacts. Draws on conventional bibliographic and media studies traditions and an array of new theories and methods. Focus on identification and understanding of methods by which artifacts have been produced and thinking about implications of these for restituting artifacts within cultural, economic, and technological systems of value production. Letter grading.

M238. Environmental Protection of Collections for Museums, Libraries, and Archives. (4) Same as Conservation M238. Three hours. Protection and conservation of objects in museums, libraries, and archives. Topics include: general principles of environmental control; understanding the principles and practice of controlled environments; design, construction, and operation of environmental control systems; climate control; light; and air circulation. Letter grading.

239. Letterpress Laboratory. (1) Laboratory, two hours. Hands-on printing experience in letterpress shop designed to give students in information studies, design, or other disciplines understanding of printing process. Basic instruction provided, and students work on project for duration of term. S/U grading.


245. Information Access. (4) Lecture, two hours; discussion, one hour. Requisites: courses 200, 260. Provides fundamental knowledge and skills enabling information professionals to link users with information. Overview of structure of literature in different fields; information-seeking behavior of user groups; communication with users; development of search strategies using print and electronic sources. Letter grading.

246. Information-Seeking Behavior. (4) Lecture, three hours; discussion, one hour. Study of factors and influences, both individual and social, associated with human beings needing, using, and acting on information. Topics include information theory, human information processing, information flow among social and occupational groups, and research on information needs and access to information. Letter grading.


M253. Medical Knowledge Representation. (4) Same as Bioengineering M226. Seminar, four hours; outside study, eight hours. Designed for graduate students. Issues related to medical knowledge representation and its application in healthcare processes. Topics include data structures used for representing knowledge (conceptual graphs, frame-based models) and different data models for representing spatio-temporal information, rule-based implementations, current statistical methods for discovery of knowledge (data mining, statistical classifiers, and hierarchical classification), and basic information retrieval. Review of work in constructing ontologies, with focus on problems in implementing them. Common medical ontologies, coding schemes, and standardized indexes/terminologies (SNOMED, UMLS). Letter grading.

M254. Medical Information Infrastructures and Internet Technologies. (4) Same as Bioengineering M227. Lecture, four hours; outside study, eight hours. Designed for graduate students. Introduction to networking, communication, and information infrastructures in medical environment. Exposure to basic concepts related to networking at several levels: low-level (TCP/IP, related services), medium-level (network topologies), and high-level (distributed computing, Web-based service implementations). Includes use of medical communication protocols (HL7, DICOM) and current medical information systems (HIS, RIS, PACS). Advances in networking, such as wireless health systems, peer-to-peer topologies, grid/cloud computing, introduction to security and encryption in networked environments. Letter grading.

M255. Medical Decision Making. (4) Same as Bioengineering M228. Lecture, four hours. Designed for graduate students. Overview of issues related to medical decision making. Introduction to concept of evidence-based medicine and decision processes related to process of care and outcomes. Basic probability and statistics to understand research results and evaluations, and algorithmic methods for decision-making processes (Bayesian theorem, decision tree design, hypothesis testing, and estimation). Focus on technical advances in medical decision support systems and expert systems, with review of classic and current research. Introduction to critical and decision-making software packages to familiarize students with current tools. Letter grading.


258. Legal Information Resources and Libraries. (4) Lecture, four hours. Introduction to information resources in law, with emphasis on primary authority and indexes to legal research sources. Law library services and management. Letter grading.


260. Description and Access. (4) Lecture, three and one half hours. Social, cultural, and technical practices—international, institutional, and personal—through which documents, records, and other forms of information are organized and represented. Design, development, and evaluation of techniques and tools, including data models, metadata schemata, search engines, and management systems in support of curatorialship, stewardship, discovery, and use. Letter grading.

262A. Data Management and Practice. (4) Lecture, three and one half hours. Designed for MLS and PhD students. Survey of landscape of data practices and services, including data-intensive research methods; social, ethical, and organizational dimensions between disciplines; management of data by research teams, data centers, libraries, and archives; practices of data sharing and reuse; and introduction to national and international policy decisions and data. Assessment of data and needs of one research community and group project to develop real data management plan in partnership with UCLA researchers in other academic departments. Letter grading.

262B. Data Curation and Policy. (4) Lecture, three and one half hours. Designed for MLS students. Con- tinuation of course 262A to address topics of data cura- tion and policy in more depth. Discussion of information, archives and repositories, economics of data management, data citation and metrics, technol- ogies for data access and curation, provenance, intel- lectual property, policy roles in data curation and management, and institutional challenges in curation and stewardship of research data. Assessment of data ar- chives and repositories and group project to curate actual data of UCLA researchers in other academic departments. Letter grading.


270. Systems and Infrastructures. (4) Lecture, four hours. Survey of systems and infrastructures, including information technologies—networks, systems, algorithms, networks, interfaces, standards, institutions, bureaucracies, and systems. Design, maintenance and development in the social world, in which information infrastructures both shape and are shaped by governmental policy, institutional decision making, socioeconomic trends, labor movements, technical advances, and market value systems, at levels ranging from local to global. S/U or letter grading.

271. Introduction to Computer Systems and Program- ming. (4) Lecture, four hours; laboratory, two hours. Introduction to computer programming and survey of foundational computer science topics, including boolean logic, computer architecture, operating sys- tems, algorithms, networks, and databases. Focus on practical skills for managing and manipulating computer media, such as searching, sorting, regular expres- sions, writing database queries, calling application program interfaces (APIs), and analyzing and creating serial- ization formats (XML, JSON, CSV, Excel). Emphasis on working with standard metadata encodings, such as MARC and EAD. Letter grading.

272. Human/Computer Interaction. (4) Lecture, four hours. Survey of social, behavioral, design, and evalua- tion issues in human/computer interaction, with read- ings from several disciplines. Extensive use of tech- nology demonstrations and class discussions. Rec- ommended for students in any discipline involved in design or implementation of information technologies. Letter grading.

273. Communities, Information, and Civic Life. (4) Seminar, three and one half hours. Investigation of community as cultural and social forces through direct col- laborations with diverse communities in Los Angeles region. Consideration of major issues around well- being of communities in contemporary America, with some eye toward larger global dynamics from fields as wide-ranging as sociology, media studies, anthrop- ology, and urban studies. Investigation of range of theoretical, methodological, and applied literatures to develop critical and practical skills for working with communities. Letter grading.

274. Database Management Systems. (4) Lecture, three hours; laboratory, two hours. Introduction to database systems, with focus on practical skills and techniques of designing, implementing, and improving databases. Letter grading.

275. Community Media and Design. (4) Lecture, two hours; laboratory, two hours. Information profes- sionals, scholars, activists, and information creators' designers/architects focus on questions of culture and community to engage students in understanding infor- mation resources as cultural objects. Role of cultural
heritage institutions within dynamics presented, but most fundamentally on how communities in partnership with information professionals can create, author, and represent information on their own and within their own terms. How new media can begin to serve as tool of empowerment through stratification. Studies of impacts of technology on larger scales through readings and introductory sketches. Letter grading.


277. Information Retrieval Systems: User-Centered Designs. (4) Lecture, two hours; discussion, two hours. Requisites: courses 245, 260. Design implications of interaction between users and features of automated information systems and interfaces that are specific to information-seeking process. Emphasis on search strategy and subject access through use of thesauri and other vocabularies. Letter grading.

278. Information and Visualization. (4) Lecture, two hours; discussion, two hours. Emphasis on visualization methods and analysis of information through visualization has become increasingly prevalent as digital tools have made creation of such visualizations easier and more popular. Many standard information visualizations combine statistical packages; others come from GIS or spatial mapping, while others are more diagrammatic in design. Basic organization of graphical user interfaces depends on principles of function, structure of and assumptions about user experience, and other graphical features that embody models of information in daily use. What are ways in which organization of visualization presents arguments about knowledge? What historical and critical tools can be brought into useful dialogue with contemporary visualizations? Letter grading.

279. Information User Experience Design. (4) Seminar; four hours. Preparation: at least one course from 246, 272, 276, 277, 455. Requisites: courses 200, 260. Content varies from term to term to allow emphasis on specialized topics such as vocabulary control, file design, indexing, classification, text processing, measurement of relevance, evaluation of information systems, and social and policy issues related to information technology and services. Letter grading.

280. Sociology of Research Methodology for Information Studies. (4) Lecture, four hours. Understanding of nature, uses, and practice of research appropriate to information studies. Identification of research questions and design materials of research, Social science quantitative and qualitative methods. Emphasis on inquiry methodology and empirical research. S/U or letter grading.


282. Design as Research Method. (4) Seminar, three and one half hours. Principles, approaches, and applications of design as methods for discovery, exploration, and evaluation of user requirements, functionality, values, and system structure. S/U or letter grading.

286. Research Apprenticeship Course. (2 to 4) Seminar, two hours. Use of mentorship model of training graduate students in information studies, with focus on development of graduate student research topics. Assignment of common readings related to these topics and one opportunity to apply them, opportunity to receive feedback. May be repeated for credit. S/U grading.

289. Seminar: Special Issues in Information Studies. (4) Seminar, three and one half hours. Identification, analysis, and decision of critical intellectual, social, and technological issues facing the profession. Topics may include (but not limited to) expert systems, literacy, electronic networks, youth at risk, information literacy, historical bibliography, preservation of electronic media, etc. May be repeated with topic change. Letter grading.

290. Research Seminar: Information Studies. (1 to 2) Seminar, one to two hours. Designed for PhD students. Emphasis on recent contributions to theory, research, and methodology. May be repeated for credit. S/U grading.

291A. Doctoral Seminar: Theoretical Traditions in Information Studies. (4) Seminar, four hours. Nature of information and information systems, epistemological, and ethical accounts of information and of information arts and sciences. Conceptions, theories, and models of information; information-related artifacts, agents, context, and institutions;; property, value; and related phenomena. Interdisciplinary context—subfields of information studies and cognitive disciplines. Frameworks for theory construction, such as critical theory, discourse analysis, semiotics, social epistemology. Letter grading.


296A. Doctoral Seminar: Research Methods and Design. (4) Seminar, four hours. Survey of quantitative, qualitative, and historical research designs. Ethical issues; conceptualization and measurement; indexes, scales, and sampling; experimental, survey, field, and evaluation research; data analysis. Letter grading.

298B-298C. Special Topics in Methodology of Information Studies. (4–4) Seminar, four hours. Enforced requisite for course 298C: course 298A. Topics include information and evidence—record-keeping and memory-making, personal and community identity, accountability and trust. Information and design—design and implementation of information systems and services. Information aesthetics. Information retrieval and knowledge organization. Information seeking, access, and use—contexts, techniques, needs, barriers. Information and value—groups, ideologies, identities, structures. Information and value—information ethics, evaluation of information services. Information policy and law—process, institutions, players, stakes. Information institutions and professions—domains, ecologies, cultures, communities. Economics, geography, history, philosophy, politics, sociology of information. Letter grading.

375. Teaching Apprentice Practicum. (1 to 4) Seminar, to be arranged. Preparation: apprentice personnel employment as teaching assistant, associate, or fellow. Teaching apprenticeship under active guidance and supervision of regular faculty member responsible for curriculum and instruction at UCLA. May be repeated for credit. S/U grading.

400. Professional Development and Portfolio Design. (2 to 4) Lecture, two hours; discussion, two hours. Preparation: completion of information studies core courses. Drawing on literature from many fields, development of professional development, such as career planning, continuing education, mentoring, and reflective practice; students also engage in process of guided portfolio design for MLIS degree. S/U grading.

410. Management Theory and Practice for Information Professionals. (4) Lecture, two hours; discussion, two hours. Principles and practice of management in all types of organizations where information professionals work. Letter grading.

421. Special Libraries and Information Centers. (4) Lecture, four hours. Organization, administration, collections, facilities, finances, and problems of special libraries and of special collections within general libraries. Letter grading.

422. College, University, and Research Libraries. (4) Lecture, four hours. Organization, administration, collections, facilities, finances, and problems of college and university libraries and their relationships within institutions of which they are part. Functions of research libraries and work of their staffs in serving scholars. Letter grading.


425. Library Services and Programs for Children. (4) Lecture, two hours; discussion, two hours. Theory and practice of service to children in public libraries. Overview of professional library service to children aged 14 and under; provides opportunities for students to gain experience in particular skills needed to provide that service. Letter grading.

426. Young Adult Literature. (4) Lecture, four hours. Overview of literature of interest to young adults (seventh grade and above). Discussion of special problems in working with young people and psychology of teenagers. S/U or letter grading.

427. Young Adult Services. (4) Lecture, two hours; discussion, two hours. Theory and practice of service to teens and tweens in libraries. Overview of professional library service to youth aged 11 and over; opportunities for students to gain experience in particular skills needed to provide that service. Discussion of special challenges in working with young people and psychology of teenagers. S/U or letter grading.

430. Library Collection Development. (4) Lecture, three and one half hours. Background of publishing and book trade from digital to antiquarian pertinent to development of collections in public, school, academic, and special libraries. Theory and practice of collection development and management, including evaluation of library user needs and assessments of collections. Organization and administration of acquisition and collection development departments. Letter grading.

431. Archives, Records, and Memory. (4) Lecture, four hours. Overview of historical and evolving conceptual foundations, major professional institutions, key practices, and contemporary issues and concerns of archival studies and American archival profession, as well as other fields interested in archives, records, and memory. S/U or letter grading.


433. Community-Based Archiving. (4) Lecture, three and one half hours. Builds on student understanding of and experience working with communities on development of practical strategies for documenting their activities; managing, collecting, and preserving their records and other historical and cultural materials; and undertaking community-centric collaborative research. Students required to reflect critically on questions about definition, community memory and recordkeeping practices, motivations, positionality and politics, voice, ethics, advocacy, funding and long-term sustainability, ownership, access and use, technological implementation, and collaborations. Letter grading.

434. Archival Use and Users. (4) Lecture, three and one half hours. Requisite: course 431. Examination of who uses archives and why, with ultimate goal of creating ways to better understand and meet needs of those users as well as develop new audiences in archival use. While archivists have traditionally conceived of their users as academic researchers, more thorough investigation expands that conception of users to include genealogists, K-12 students and educators, families of victims of human rights abuse, community members, and members of general
services, tools, and procedures. Cataloging rules and entry and description of library materials. Constitution, or letter grading.


types of materials and for preparing informative and basic professional techniques for indexing variety of 462. Subject Cataloging and Classification. (4)

457. Health Sciences Librarianship. (4)


457. Health Sciences Librarianship. (4) Letter, four hours. Health sciences information resources and services, management of health sciences information resources and services, health sciences environment and policies, information systems and technology. Letter grading.


464. Metadata. (4) Lecture, four hours. Introduction to variety of metadata provided for digitized and other electronic information resources. Introductory theory and practice designing and applying metadata. S/U or letter grading.

473. Information Technology and Libraries. (4) Lecture, four hours. Overview of major components of library automation: circulation control, acquisitions and serials, public access information systems, and data conversion. Relationships among various automation entities, including internal library automation, networks and vendors (such as bibliographic utilities, regional networks, and online services), and automation of parent organizations (universities, municipalities, corporations, and government agencies). Developments in standards for information processing and new information technologies. Letter grading.

480. Introduction to Media Archiving and Preservation. (4) Seminar, four hours. Overview of history, conceptual foundations, policies, institutions, and professional methods that have shaped collections of audiovisual materials from early 20th century to present. Involvement of archivists in development of online archival access systems. Letter grading.

498. PhD Research and Writing. (2 to 12) Tutorial, to be arranged. Directed special studies in area of study or complexity of research. S/U grading.

501. Cooperative Program. (2 to 8) Seminar, to be arranged. Directed special studies in area of study or complexity of research. S/U grading.


508. MLIS Thesis Research and Writing. (2 to 8) Tutorial, to be arranged. Directed special studies in fields of bibliography, librarianship, and information science. Variable conference time depending on nature of study or complexity of research. S/U grading.

509. PhD Research and Writing. (2 to 12) Tutorial, to be arranged. S/U grading.
Scope and Objectives
The cornerstone of the Physiological Science curriculum is vertebrate physiology, with emphases on integrative functions. The research and educational programs of the Department of Integrative Biology and Physiology focus on integrative physiology at several levels of organization from molecules to living organisms, microscopic structures to macroscopic organization, and cellular properties to organismal functions. Students receive comprehensive instruction in all areas of physiological science, while elective courses reflect faculty research expertise, including developmental neurobiology, gene regulation/neural development, cellular neurobiology, molecular neurobiology, neuromuscular physiology, neuroendocrine physiology, cardiac physiology, diet and degenerative disease, auditory and visual behavior, biomechanics of rehabilitative medicine, muscle cell biology, inflammatory cell biology, vascular biology, cardiac electrophysiology, neumotor control, and social control of neuronal plasticity.

Applicants interested in pursuing graduate study may apply directly to the interdepartmental Molecular, Cellular, and Integrative Physiology PhD program or the interdepartmental Neuroscience PhD program.

Undergraduate Study
Physiological Science BS

Learning Outcomes
The Physiological Science major has the following learning outcomes:

- Demonstrated broad knowledge of the fundamentals of vertebrate anatomy and physiology
- Demonstrated ability to address scientific questions and solve problems quantitatively, learn to form hypotheses, design and perform experiments, analyze data, and interpret results
- Reading, understanding, and application of critical thinking to primary scientific literature
- Understanding of how to assess key questions and hypotheses
- Interpretation of results and conclusions
- Discrimination of quality through critique
- Appreciation for research by participating in one or more laboratory experiences
- Clear and fluent communication of scientific knowledge
- Effective written and verbal skills

Preparation for the Major
Life Sciences Core Curriculum

Required: Chemistry and Biochemistry 14A, 14B, 14BL, 14C, 14CL, and 14D, or 20A, 20B, 20L, 30A, 30AL, 30B, and 30BL; Life Sciences 7A, 7B, 7C, 23L, and 30A, 30B, and 40 or Statistics 13, or Mathematics 3A, 3B, and 3C, or 31A, 31B, and 32A; Physics 1A, 1B, 1C, 4A, and 4BL, or 5A, 5B, and 5C.

To enter the Physiological Science major, students must complete Chemistry and Biochemistry 14A, 14B, and 14C, or 20A, 20B, and 30A; Life Sciences 7A, 7B, Mathematics 3A, 3B, and 3C, or 31A, 31B, and 32A, or Life Sciences 30A, 30B, and 40, or Statistics 13, and Physics 1A or 5A, with a minimum grade of C in each course and a grade-point average of 2.0 or better in all before fall quarter of their third year. Repetition of more than one of these nine preparation courses results in denial of admission to the major. After successful completion of the courses, students must contact the Undergraduate Advising Office to declare the major.

For all preparation courses, students must complete each course with a grade of C or better. Repetition of more than one preparation course results in dismissal from the major.

Transfer Students
Transfer applicants to the Physiological Science major with 90 or more quarter units must complete the following introductory courses prior to admission to UCLA: one year of general biology with laboratory for majors, preferably equivalent to Life Sciences 7A, 7B, and 7C; one year of general chemistry with laboratory for majors, and one semester of organic chemistry with laboratory. A second semester of organic chemistry or one year of calculus-based physics is strongly recommended but not required for admission.

Transfer credit for UCLA Extension coursework and for any departmental courses is subject to prior approval by the department; consult with the undergraduate counselor before enrolling in any courses for the major.

Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

The Major
Required: Physiological Science 107, 111A, 111B, 111L, Chemistry and Biochemistry 153A.

A total of five upper-division physiological science electives is required. Eight units of course 199 or 4 units each (8 units total) of courses 198A and 198B, for students in the departmental honors program, may be applied toward the elective requirement. One 200-level graduate course may be applied toward the elective requirement with departmental approval. Courses 199HC, 191H, 192, 193, 195, 196, and graduate courses at the 300, 400, or 500 level may not be applied toward the elective requirement.

Each required and elective course must be taken for a letter grade, and a C average must be maintained in all upper-division courses taken for the major. A grade of C or better is required in Physiological Science 107 and 111A to enroll in course 111B. If students fail to meet these requirements, they may be dismissed from the major.

Honors Program
The honors program provides exceptional students with the opportunity for individual research culminating in an honors thesis. Requirements for admission include a 3.0 overall grade-point average (GPA) and a 3.2 GPA in the Life Sciences core curriculum. After completion of all requirements and with the recommendation of the faculty adviser, the under-graduate affairs committee confers departmental honors at graduation.

Graduate Study
Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Division website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Graduate Degree
The Department of Integrative Biology and Physiology offers the Master of Science (MS) degree in Physiological Science.

Physiological Science
Lower-Division Courses
3. Introduction to Human Physiology. (6) Lecture, three hours; laboratory, two hours. Not open to Physiological Science majors. Courses 3 and 5 may be taken independently, concurrently, or in either sequence. Understanding of human body, its organization from molecular to cellular to tissues and organs, and how component parts function in integrated manner to permit life as we know it. P/NP or letter grading.

5. Issues in Human Physiology: Diet and Exercise. (6) Lecture, three hours; discussion, 1 hour; laboratory, 90 minutes. Not open to Physiological Science majors. Basic introduction to principles of human biology, with special emphasis on roles that exercise and nutrition play in health, and prevention and management of such illnesses as hypertension, diabetes, and heart disease. P/NP or letter grading.


7. Science and Food: Physical and Molecular Origins of What We Eat. (6) Lecture, three hours; laboratory, two and one half hours. Preparation: high school chemistry, mathematics, physics. What makes lettuce crispy and some cuts of meat chewier than others? Exploration of origins of food texture and flavor, using concepts in physical sciences to explain macroscopic properties such as elasticity and phase behavior, as well as physiological role of food molecules in plants and animals we eat. Letter grading.

13. Introduction to Human Anatomy. (6) Lecture, four hours; laboratory, five hours. Not open to Physiological Science majors. Structural survey of human body, including skeletalmuscular, nervous, circulatory, respiratory, digestive, and genitourinary systems. Laboratory includes examination of human cadaver specimens. Letter grading.

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

89. Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to lower-division lecture course. Emphasizes depth and extended general depth through supplemental readings, papers, or other activities and led by lecture course instructor.

Integrative Biology and Physiology / 499

Preparation for the Major
Life Sciences Core Curriculum

Required: Chemistry and Biochemistry 14A, 14B, 14BL, 14C, 14CL, and 14D, or 20A, 20B, 20L, 30A, 30AL, 30B, and 30BL; Life Sciences 7A, 7B, 7C, 23L, and 30A, 30B, and 40 or Statistics 13, or Mathematics 3A, 3B, and 3C, or 31A, 31B, and 32A; Physics 1A, 1B, 1C, 4A, and 4BL, or 5A, 5B, and 5C.
May be applied toward honors credit for eligible students. Honors content noted on transcript. P/np or letter grading.

89HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to lower-division lecture course to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

90. Introduction to Physiological Science. (2) Lecture, one hour; discussion, one hour. Limited to freshmen/sophomores. Introduction to current topics required. Honors content noted on transcript. P/np or letter grading.

99. Student Research Program. (1 to 2) Tutorial (supervised research or other scholarly work), three hours per week per unit. Entry-level research for lower-division students under guidance of faculty mentor. Students must be in good academic standing and enrolled in minimum of 12 units (excluding this course). Individual contract required; consult Undergraduate Research Center. May be repeated. P/np or letter grading.

Upper-Division Courses

100. Experimental Statistics. (4) Lecture, four hours. Introduction to statistics with focus on computer simulations instead of formulas. Bootstrap and Monte Carlo methods used to analyze physiological data. P/np or letter grading.

M106. Neurobiology of Bias and Discrimination. (4) (Same as Neuroscience M187 and Psychology M166.) Lecture, four hours (two lectures). Limited to junior/senior neuroscience, physiological science, and psychology students. Exploration of aspects of mammalian brain function that generate preference, bias, and discrimination. Consideration of research at multiple levels of analysis that illustrates neural circuits that underlie these processes. Discussion of societal implications of these research findings, including their relevance to public policies and criminal justice system. Letter grading.

107. Systems Anatomy. (5) Lecture, four hours; laboratory, three hours; tutorial, two hours. Requisites: Life Sciences 2 or 7C, and Physics 1A, 5A, or 6A. Students must receive a grade of C or better to proceed to next course in series. Systems anatomy focuses on primary human anatomy. Topics include cardiorespiratory, reproductive, nervous, and skeletal muscular systems, with introduction to biomechanical principles. Letter grading.


111A-111B. Foundations in Physiological Science. (6-6) Lecture, four hours; discussion, two hours. Letter grading. 111A. Requisites: course 107, Chemistry 14C or 30A, Life Sciences 1, 2, 3, 4, 23L, Physics 1B or 5C. Students must receive grade of C or better to proceed to next course in series. Systems anatomy focused primarily on human anatomy. Topics include cardiorespiratory, reproductive, nervous, and skeletal muscular systems, with introduction to biomechanical principles. Letter grading.

111L. Physiological Science Laboratory. (3) Laboratory, four hours. Requisites: courses 111A and 111B, with grades of C- or better. Required of Physiological Science majors. Designed to illustrate physiological principles studied in courses 111A, 111B. Letter grading.

120. Kidney: Understanding It from Development to Disease to Therapy. (4) Lecture, three hours. Enforced requisites: courses 111A, 111B. Review of knowledge of basic renal function, with emphasis on basic renal units and renal molecular mechanisms. Introduction to research methods typically employed in studies of kidney and exploration of state-of-arts on research on kidney repair and regeneration. Letter grading.

121. Disease Mechanisms and Therapies. (5) Lecture, three hours; discussion, one hour. Requisites: Chemistry 153A, and Life Sciences 2, 3, and 4 or 7A, 7B, and 7C. Designed for junior/senior Biochemistry and life sciences majors. Use of disease mechanisms as pedagogical tools to develop higher-order knowledge of basic scientific concepts. Integration of concepts from genetics, molecular and cell biology, physiology, and biochemistry to create molecular solutions to problem of inherited neuromuscular disease. Letter grading.

122. Biomedical Technology and Physiology. (4) Lecture, four hours; laboratory, two hours. Requisites: courses 111A, 111B, Life Sciences 2 or 7C, Physics 1A, 1B, and 1C, or 5A, 5B, and 5C, or 6A, 6B, and 6C. Development in biotechnology and their impact on diagnosis and treatment of disease as it relates to fundamental principles that govern living organisms. Techniques that lend themselves to deciphering physiological states, and application of new technologies in clinical practice and biomedical research. Letter grading.

CM123. Neurobiology of Sleep. (4) (Same as Neuroscience CM123.) Lecture, three hours; discussion, one hour. Requisites: courses M101A and M101B or 111A and 111B. Consideration of sleep. Development of chronopharmacology of sleep. Cellular and molecular mechanisms of falling asleep, many discrete brain structures involved in control of sleep wakefulness, and homoeostatic principles. How our sleep needs shaped by our evolutionary history, age, and gender. Latest insights into question of function of sleep, critical role sleep plays in memory formation and, close association between sleep and metabolism. Sleep disorders are considered. Current research provides insights into mechanisms underlying sleep. For background on science of sleep and circadian rhythms, completion of course C126 is highly recommended. Concurrently scheduled with course CM223. Letter grading.

124. Molecular Biology of Aging. (4) Lecture, three hours. Requisites: Chemistry 153A, Life Sciences 1, 2, 3, 4, 23L, or 7A, 7B, and 7C. Discovery of new science of aging. Examination of aging as plastic trait modulated by genes and physiological processes. Discussion of how these findings integrate both nutritional modulation of lifespan and complex and profound relationship between underlying aging process and diseases of aging. Topics include dietary restriction, mitochondria, insulin/IGF-signaling, and link between tumor suppression and organismal aging. Letter grading.

125. Molecular Systems Biology. (5) Lecture, three hours; discussion, one hour. Requisites: Life Sciences 2, 3, 4, and 23L, or 7A, 7B, 7C, and 23L. Quantitative description of molecular systems that underlie myriad phenotypes in living cells. Topics include various -omics fields and high-throughput technologies, network biology, and synthetic biology. Introductory lectures on molecular biology, emerging bioinformatic approaches. Students are expected to be familiar with discussions of their applications in disease-related research. Review of recent literature to gain overall perspectives about new science of systems biology. Letter grading.

C126. Biological Clocks. (4) Lecture, three hours; discussion, one hour. Requisites: courses 111A and 111B, or M180A and M180B. Most organisms, including human, exhibit daily rhythms in physiology and behavior. In many cases these rhythms are generated within organisms and are called circadian rhythms. Biological basis of these daily rhythms or circadian oscillations. Exploration of molecular, cellular, and system-level organization of these timing systems. Temporal role of these variations in maintaining homeostatic mechanisms of body and impact on nervous system. Concurrently scheduled with course C230. Letter grading.


128. Me, Myself, and Microbes: The Microbiome in Health and Disease. (2) Lecture, four hours; discussion, nine minutes. Requisites: course 107 or Chemistry 153A, Life Sciences 2 or 3 or 7A, 7B, and 7C. Explorations of host-microbiome interactions in health and disease, drawing upon models from microbial communities, intersections with immunology, metabolism, and neurobiology. Letter grading.

C130. Sex Differences in Physiology and Disease. (4) Lecture, three hours. Requisites: course 111B, Life Sciences 7A, 7B, 7C. Investigation of biological origins of sex differences in physiology (mostly vertebrate), and susceptibility to disease, including history of development of concepts to define sex, and interface between biological factors and social and environmental environments. Topics include evolution of sex chromosomes, molecular and environmental determination of gonadal type, dosage compensation, gonadal steroid hormone effects on tissues, physiology of reproduc- tion as it applies to sex differences, interaction of genetic and environmental factors in differentiation of two sexes, defining sex and gender, gendered environments and their influences on physiology, and politics of financial support for research of sex and gender differences in disease. Concurrently scheduled with course C230. Letter grading.

135. Dynamics, Systems Modeling of Physiological Processes. (5) (Formerly numbered 135.) (Same as Neuroscience M135.) Lecture, four hours; laboratory, two hours. Examination of models of regulatory processes and evaluation of models of physiological systems and of dynamical principles inherent in physiological systems. Letter grading.


138. Neuroumous Physiology and Adaptation. (4) Requisites: course 111B, Chemistry 153A. Cellular mechanisms to understand acute and chronic changes in brain and behavior.

M140. Hormones and Behavior in Humans and Other Animals. (4) (Same as Anthropology M128R and Society and Genetics M140.) Lecture, three hours; discussion, one hour. Examination of hormones, and physiology and genetics involved in hormonal processes and function. Interactions among hormonal factors, environmental stimuli, and behavior. Sexual behavior, pregnancy, and lactation, parental behavior, development and emigration, stress, social behavior, dominance relationships, aggression, chemical communication, and reproduction. Critique of primary literature on behavioral endocrinology about humans and other species. Consideration of spectrum of noninnovative to highly invasive endocrine sampling techniques of humans and other species can be answered in laboratory and field, as well as ethics of hormonal studies and their implications for humans and other animals. Letter grading.

C144. Neural Control of Physiological Systems. (4) Lecture, four hours. Requisites: courses 111B or M180B. Role of central nervous system in control of respiration, circulation, sexual function, and bladder control. Material for each section to be developed by combination of lecture and discussion. Concurrently scheduled with course C244. Letter grading.
Lane grading.

146. Principles of Nervous System Development. (5) Lecture; three hours; discussion, 90 minutes. Requisites: courses 107 (or Neuroscience 102) and 11A (or M180A, Molecular, Cell, and Developmental Biology M175A, Neuroscience M101A, or Psychology M117A). Examination of construction of vertebrate nervous system. Development of integrated systems beginning with several embryonic cells and culminating in a complex highly ordered system. Topics include neuroplasticity, regionalization, neurogenesis, migration, axonal outgrowth, guidance, and synaptogenesis. Letter grading.

147. Neurobiology of Learning and Memory. (5) Lecture, four hours; discussion, one hour. Requisite: course 111A or M180A. Changes in central nervous system that accompany learning, with emphasis on cellular mechanisms.


153. Dissection Anatomy. (5) Lecture, two hours; laboratory, six hours. Requisite: course 107. Prior to first meeting, must complete Biodiversity and Pathways training course through UCLA Environment, Health and Safety. Study and dissection of upper and lower extremities of human cadavers; dissection of thorax and abdomen limited to musculature and neurovascular supply. Letter grading.

154. Cellular Communication and Regulation of Physiological Processes. (4) Lecture, three hours. Limited to juniors/seniors. Signal transduction concepts, with focus on role of receptors, G proteins, and intracellular messengers such as cyclic AMP and calcium. Integration of these concepts with variety of physiological and repair mechanisms analyzed in conjunction with musculoskeletal injuries and effects of exercise. Concurrently scheduled with course C252. Letter grading.

155. Development and Structure of Musculoskeletal System. (4) Requisite: course 111B. Development, histology, cell biology, and biochemistry of musculoskeletal system. Developmental processes of bone and muscle and connective tissue structure and function on each of these levels to understand organization and physiological behavior of the intact system.

156. Molecular Mechanisms and Therapies for Musculoskeletal Diseases. (4) Lecture, three hours; discussion, one hour. Requisite: course 111A (may be taken concurrently), Life Sciences 4 with grade of B or better. Causes and pathogenesis of Duchenne muscular dystrophy and some fundamental scientific findings using original scientific research. Exploration of therapies aimed at individual stages of pathogenic disease as method to develop critical expert-like thinking skills. Lectures based on experiments from primary scientific literature, and students expected to understand genetic and phenotypic animal models of muscular dystrophy, to design experiments, and to predict outcomes from research data. Letter grading.

156. Comparative Animal Physiology. (5) Lecture, three hours; discussion, one hour. Requisites: Life Sciences 1, 2, 3, and 23L, or 7A, 7B, 7C, and 23L. Physiological response and function at molecular, cellular, system, and organismal levels as a basis for understanding how animals to range of environmental conditions. Major topics include neural and muscular structure and function, hormones, gas exchange, energetics, and thermoregulation. Examination of cinematographic, force platform, and digital computer techniques to characterize and evaluate kinematics and kinetics of movement. Letter grading.


M171. Variable Topics Research Seminars: Contemporary Biology. (2) (Same as Neurobiology M171.) Seminar, two hours. Limited to undergraduate fellows in Integrated and Interdisciplinary Undergraduate Research Program. Presentations of scientific data from primary research articles and from students’ own research. May be repeated for credit. P/NP grading.

173. Anatomy and Physiology of Sense Organs. (4) Lecture, three hours; discussion, one hour. Requisites: courses 111A, or M180A and M180B, or Molecular, Cell, and Developmental Biology M175A and M175B. Structure and function of organs. A systems approach of quantitative and comparative approaches to provide insight into evolution of sense organs in both invertebrates and vertebrates. Letter grading.

174. Cell Biophysics in Physiology and Disease. (5) Lecture, three hours; discussion, two hours. Enforced requisites: Chemistry 153A, Life Sciences 2, 3, 4, and 23L, or 7A, 7B, 7C, and 23L, Physics 5A, 5B, and 5C, or 6A, 6B, and 6C. Focus on voltage-dependent channels and neurotransmitter receptors. Molecular biology of ion channels and receptors, with emphasis on the regulation of ion channels and mechanisms of disease in neurological and neuromuscular diseases. Letter grading.

M180A. Cellular and Systems Neuroscience. (5) Lecture, four hours; discussion, 90 minutes. Requisites: Chemistry 14C or 30A (14C may be taken concurrently), Life Sciences 2 or 7C, 7B, 7C, and 30A and 30B. Introduction to principles of cellular and physiological mechanisms underlying generation of action potential. Letter grading.

M180B. Molecular and Developmental Neuroscience. (5) Lecture, four hours; discussion, 90 minutes. Requisites: course 111A or M180A (or Molecular, Cell, and Developmental Biology M175A-M175B-M175C, Neuroscience M101A-M101B-M101C, or Psychology M117A-M117B-M117C), lecture, four hours; discussion, 90 minutes. P/NP or letter grading.

M180C. Behavioral and Cognitive Neuroscience. (5) Lecture, four hours; discussion, 90 minutes. Requisite: course 111A or M180A (or Molecular, Cell, and Developmental Biology M175A-M175B-M175C, Neuroscience M101A-M101B-M101C, or Psychology M117A-M117B-M117C), lecture, four hours; discussion, 90 minutes. P/NP or letter grading.

187A. Seeing Brain in Action. (2) Seminar, two hours. Enforced requisites: courses 111A and 111B (or Neuroscience M103A and M103B). Introduction to latest technical approaches and conceptual advances in one preeminent subfield of neuroscience—live functional imaging. Students presented with critically scientific literature and are expected to exercise in scientific writing and peer review. Letter grading.

187B. From Cell to Circuit. (2) Seminar, two hours. Enforced requisites: courses 111A and 111B (or Neuroscience M101A and M101B), 187A. Introduction to
latest technical approaches and conceptual advances in one preeminent subfield of neuroscience—specification of neural circuits. Students provided with critical scientific presentation experience and complete one exercise in scientific writing and peer review. Letter grading.

188SA. Individual Studies for USIE Facilitators. (1) Tutorial, to be arranged. Enforced corequisite: Honors Collegium 101E. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor to discuss selected USIE seminar topics, conduct preparatory research, and begin preparation of syllabus. Individual contract with faculty mentor required. May not be repeated. Letter grading.

188SB. Individual Studies for USIE Facilitators. (1) Tutorial, to be arranged. Enforced corequisite: Honors Collegium 101E. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor to finalize course syllabus. Individual contract with faculty mentor required. May not be repeated. Letter grading.

188SC. Individual Studies for USIE Facilitators. (2) Tutorial, to be arranged. Enforced corequisite: course 188SB. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor while facilitating USIE 88S course. Individual contract with faculty mentor required. May not be repeated. Letter grading.

189. Advanced Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to undergraduate lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

189HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to upper-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

191. Variable Topics Research Seminars: Physiology. (2) Seminar, two hours. Enforced requisite: course 111A. Focused reading in single subdiscipline of physiology with an emphasis on critical analysis and primary research literature. Emphasis on understanding methods for research in physiology and interpretation of experimental results, and how they bear on concepts of the course. Letter grading. May be repeated for credit. Letter grading.

191H. Honors Seminars: Current Topics in Physiology. (4) Seminar, four hours. Requisites or corequisites: courses 198A, 188B. Limited to neurosciences and physiological sciences honors program students. Designed for juniors/seniors and required of departmental honors students. Presentation of primary paper from current research literature and oral evaluation of current research literature. Presentation of student laboratory research hypothesis, approach, and results in form of oral and poster presentations. Letter grading.

192. Practicum in Systems Anatomy for Undergraduate Assistants. (3) Seminar, two hours; additional hours in laboratory setting, to be arranged. Requisite: course 107. Limited to juniors/seniors. Training and supervision practicum in systems anatomy for undergraduate assistants. Consult Undergraduate Office for further information. May not be applied toward elective requirements and may not be repeated for credit. Departmental application required. P/NP or letter grading.

193. Journal Club Seminars: Physiological Science. (1) Seminar, one hour. Limited to undergraduate students. Discussion of readings selected from current literature and related research literature. May be repeated for credit. Letter grading.

194A. Research Group Seminars: Physiological Science. (2) Seminar, two hours. Required of undergraduate students in research traineeships such as MARC and UC Leads programs. Discussion of research methods and current literature in field of or research of faculty members or students. May be repeated for credit. Letter grading.

194B. Research Group Seminars: Physiological Science. (1) Seminar, two hours. Corequisites: course 198A or 188B or 198C or 199. Limited to juniors/seniors. Weekly group meetings to encourage student participation in research and to stimulate progress in specific research areas. Discussion of research methods and current literature in field of or research of faculty members or students. May be repeated for credit. P/NP grading.

195. Field Studies in Physiological Science. (4) Tutorial, one hour; fieldwork, eight hours. Limited to seniors. Supervised field studies in specific careers related to physiological science. May not be repeated for credit and may not be applied toward elective requirements for major. Individual contract with supervisor for supervising faculty member required. Letter grading.

196. Research Apprenticeship in Physiological Science. (2 to 4) Tutorial, three hours per week per unit. Limited to juniors/seniors. Entry-level research apprenticeship with guidance of research community of mentor advisor. May be repeated for credit. Consultant department. Individual contract required. P/NP grading.

198A. Honors Research in Physiological Science. (4) Tutorial, 12 hours. Requisites: courses 111A, 111B, 193 (193 may be taken concurrently). Limited to junior/senior physiological science honors program students. Directed independent research for departmental honors with faculty member, including definition of research topic and extensive reading and review of field of proposed honors thesis. May be repeated for credit. Individual contract required. May be listed as independent study. P/NP grading.

198B. Honors Research in Physiological Science. (4) Tutorial, 12 hours. Requisites: courses 193 (may be taken concurrently), 198A. Limited to junior/senior physiological science honors program students. Continued reading and research that culminate in final honors thesis. May be repeated for credit. Individual contract required. Letter grading.

198C. Advanced Studies for Honors Research in Physiological Science. (4) Tutorial, 12 hours. Requisites: course 198B. Corequisite: course 193. Limited to junior/senior physiological science honors program students. Directed independent research for departmental honors with faculty member. May be repeated for credit. Individual contract required. May be listed as independent study. P/NP grading.

199. Directed Research or Senior Project in Physiological Science. (3) Tutorial, 12 hours. Requisites: courses 193 (may be taken concurrently), 198A. Limited to junior/senior physiological science honors program students. Directed independent research or undergraduate thesis. May be repeated for credit; individual contract required. Letter grading.

200. Advanced Experimental Statistics. (4) Lecture, four hours; laboratory, one hour. Introduction to statistics with focus on use of statistical analysis and interpretation of formulas. Bootstrap and Monte Carlo methods used to analyze physiological data. S/U or letter grading.

M202. Cellular Neurophysiology. (4) (Same as Neurobiology M208 and Neuroscience M202.) Lecture, three hours; discussion, one hour. Requisites: courses 111A (or M180A) or Physics 5C). 166. Advanced course in cellular physiology of neurons. Action and membrane potentials, channels and channel blockers, gates, ion pumps and neuronal homeostasis, synaptic receptors, drug-receptor interactions, transmitter release, modulation by second messengers, and sensory transduction. Letter grading.

M210. Molecular and Cellular Mechanisms of Neural Integration. (5) (Same as Neuroscience M230 and Physiology M210.) Lecture, four hours; discussion, one hour. Requisite: Neuroscience M202. Introduction to calcium and sodium channels, selected problems of current interest, including regulation and modulation of transmitter release, molecular biology and physiology of receptors, selected topics in integration in sensory perception and learning, neural nets and oscillators, and molecular events in development and sexual differentiation. Letter grading.

211. Exercise Cardiovascular Physiology. (4) Attention to cardiovascular adaptations as well as adaptations associated with regular exercise training.

215. Molecular and Cellular Foundations of Physiology. (3) (formerly numbered M215.) Lecture, three hours; discussion, one hour. Detailed look into science of sleep. Cellular and molecular mechanisms of falling asleep, many discrete brain structures involved in control of sleep wakefulness, and homeostatic regulation of sleep. How our sleep needs are shaped by our evolutionary history, age, and gender. Latest insights into question of function of sleep, critical role sleep plays in memory formation and, close association between sleep and metabolism. Sleep disorders are considered as they provide insights into mechanisms underlying sleep and memory. Enforced requisite: course 198A. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor while facilitating USIE 88S course. Individual contract with course CM123. Letter grading.

C226. Biological Clocks. (4) Lecture, three hours; discussion, one hour. Requisites: courses 111A and 111B, or M180A and M180B. Most organisms, including humans, exhibit daily rhythms in physiology and behavior. In many cases these rhythms are generated from within organisms and are called circadian rhythms. Basic knowledge of the circadian system and changes in circadian rhythms in relation to sleep. Physiology of mammalian and avian circadian rhythms, completion of course C126 is highly recommended. Concurrently scheduled with course CM123. Letter grading.

CM222. Neurobiology of Sleep. (4) (formerly numbered C222.) (Same as Neuroscience CM223.) Lecture, three hours; discussion, one hour. Detailed look into science of sleep. Cellular and molecular mechanisms of falling asleep, many discrete brain structures involved in control of sleep wakefulness, and homeostatic regulation of sleep. How our sleep needs are shaped by our evolutionary history, age, and gender. Latest insights into question of function of sleep, critical role sleep plays in memory formation and, close association between sleep and metabolism. Sleep disorders are considered as they provide insights into mechanisms underlying sleep and memory. Enforced requisite: course 198A. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor while facilitating USIE 88S course. Individual contract with course CM123. Letter grading.

CM227. Neuroendocrinology of Reproduction. (4) (Same as Neurobiology M227.) Lecture, three hours. Enforced requisite: course 111B. Understanding of reproductive neuroendocrinology thorough mammalian lifespan, with emphasis as appropriate on human condition. Discussion of general concepts of endocrine feedback and feed-forward loops, sexual differentiation, and structure and function for components of the hypothalamic-pituitary-gonadal axis in relation to mechanisms of puberty and adolescent sexual development. Enforced requisite: course 111A and 111B, or M180A and M180B. Most organisms, including humans, exhibit daily rhythms in physiology and behavior. In many cases these rhythms are generated from within organisms and are called circadian rhythms. Basic knowledge of the circadian system and changes in circadian rhythms in relation to sleep. Physiology of mammalian and avian circadian rhythms, completion of course C126 is highly recommended. Concurrently scheduled with course CM123. Letter grading.

C230. Sex Differences in Physiology and Disease. (4) Lecture, three hours. Requisites: course 111B. Life Sciences 7A, 7B, 7C. Investigation of biological origins of sex differences in physiology (mostly vertebrate), and susceptibility to disease, including history of development of concepts to define sex, and interface between biological factors and effects of gendered environments. Topics include evolution of sex chromosomes, molecular and environmental determination of sex and gender, gonad hormone effects on tissues, physiology of reproduction as it applies to sex differences, interaction of genetic and environmental factors in differentiation of two sexes, defining sex and gender, gendered environments and their influence on physiology, and poli-
International and Area Studies / 503

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Jennifer J. Chun, PhD
Chair

Jennifer J. Chun, PhD
Faculty Committee
Jennifer J. Chun, PhD (Asian American Studies)
International and Area Studies / 503

270A. Modern Concepts in Physiology. (4–4)
Lecture, two hours; discussion, two hours. Study and evaluation of primary research literature. Study of foundations of modern techniques in physiology research, analysis of research design. Letter grading.

270A. Highly recommended prerequisite or corequisite: course 111A. Foundation for experimental study of principles of muscular and neural physiology and cellular and systems neurobiology, including factors controlling membrane excitability, neuronal circuits, sensory-motor regulation, special senses, cortical functions, and neural plasticity. 270B. Highly recommended prerequisite or corequisite: course 111B. Foundation for experimental study of principles of systems physiology, including endocrinology, transport physiology, and neural, cardiovascular, and pulmonary physiology.

M272. Neuroimaging and Brain Mapping. (4) (Same as Neuroscience CM272 and Psychology M213.) Lecture, three hours. Requisites: course M202, Neuroscien
cy M201. Theory, methods, applications, assumptions, and limitations of neuroimaging. Topics, biological questions, and results. Brain structure, brain function, and their relationship discussed with regard to imaging. Letter grading.

M289A. Honing Your Skills as Researcher in Integrative Biology and Physiology. (2–3) Seminar, one hour. Limited to graduate students in Physiological Science master's program. Scientific method and evaluation of research literature in physiology; scientific ethics; and professional development—writing curriculum vitae (CV) and cover letter. Letter grading. 289B. Requisite: course 289A.

M290. Seminar: Comparative Physiology. (2) (Same as Ecology and Evolutionary Biology M290.) Seminar, two and one half hours. Discussion of specific topics in comparative physiology of animals. Topics vary from year to year based on the interests of students and faculty. Emphasis on physiological, molecular, and anatomical basis governing repair processes in brain and spinal cord and their clinical implications. Letter grading.

M293. Seminar: Muscle Cell Biology. (2 to 4 each semester) Seminar, two hours. Selected topics on muscle cell biology. Students required to present two-hour seminar. May be repeated for credit.

M295. Seminar: Muscle Cell Biology. (2 to 4) Seminar, two hours. Selected topics in muscle cell biology. Students required to present two-hour seminar. May be repeated for credit.

M296. Seminar: Nervous System Development. (1 to 2) Seminar, two hours. Selected topics in development of nervous system, including factors controlling neuronal development, and microarray analysis. Letter grading.

M297. Seminar: Nervous System Development. (1 to 2) Seminar, two hours. Selected topics in development of nervous system, including factors controlling neuronal development, and microarray analysis. Letter grading.

M298. Seminar: Nervous System Development. (1 to 2) Seminar, two hours. Selected topics in development of nervous system, including factors controlling neuronal development, and microarray analysis. Letter grading.

M299. Seminar: Nervous System Development. (1 to 2) Seminar, two hours. Selected topics in development of nervous system, including factors controlling neuronal development, and microarray analysis. Letter grading.

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M306. Seminar: Nervous System Development. (1 to 2) Seminar, two hours. Selected topics in development of nervous system, including factors controlling neuronal development, and microarray analysis. Letter grading.

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M311. Seminar: Nervous System Development. (1 to 2) Seminar, two hours. Selected topics in development of nervous system, including factors controlling neuronal development, and microarray analysis. Letter grading.

M312. Seminar: Nervous System Development. (1 to 2) Seminar, two hours. Selected topics in development of nervous system, including factors controlling neuronal development, and microarray analysis. Letter grading.

M313. Seminar: Nervous System Development. (1 to 2) Seminar, two hours. Selected topics in development of nervous system, including factors controlling neuronal development, and microarray analysis. Letter grading.

M314. Seminar: Nervous System Development. (1 to 2) Seminar, two hours. Selected topics in development of nervous system, including factors controlling neuronal development, and microarray analysis. Letter grading.
of a specific region or a thematic subject that spans regions. Student research, analytic, and writing skills are exhibited through their capstone work, along with their collaborative and oral communication skills.

**African and Middle Eastern Studies BA**

**Capstone Major**
The African and Middle Eastern Studies major allows students to analyze the area or a subregion (e.g., Middle east, North Africa, Arab states, sub-Saharan Africa) from an interdisciplinary and modern perspective. The major seeks to ground students in broad international issues that they can then use to focus on particular concerns of that part of the world.

**Learning Outcomes**
The African and Middle Eastern Studies major has the following learning outcomes:

- In-depth analysis of a specific region or a thematic subject that spans regions
- Demonstrated critical understanding of issues relevant to a specific region or theme
- Demonstrated skills, including research, analysis, and writing
- Identification and analysis of appropriate sources, material evidence, and other forms of primary documents
- Demonstrated proficiency at collaborative engagement with peers through constructive feedback on written drafts and oral presentations
- Demonstrated proficiency at using peer feedback to enhance student's own work
- Effective communication of complex ideas in a seminar setting
- Demonstrated effective oral and written communication of research findings
- Conception and execution of a project that identifies and engages with a specialized topic
- Working knowledge of scholarly discourse relative to a specialized topic

**Admission**
To be eligible to declare the African and Middle Eastern Studies major, students must have completed all nonlanguage preparation for the major courses and the foreign language courses through at least level 3 (elementary level). Any remaining language courses may be completed after students have been accepted to the major. Each preparation for the major course must be taken for a letter grade. Students must have a UC grade-point average of 2.0.


**Preparation for the Major**
Required: (1) International and Area Studies 1, (2) one area studies course from Afrikaans 40, Art History 28, History 105, 108, 97F, 97H, Middle Eastern Studies M50CW, or Portuguese 40A, (3) two international politics and markets courses from Economics 1, 2, Geography 4, 6, Political Science 50 or 50R, Sociology 1, (4) two international societies and cultures courses from Anthropology 3, Comparative Literature 1D or 2DW or 4DW, Ethnomusicology 5, M25, Geography 3, History 28, 22, World Arts and Cultures 20, 33, and (5) one area-related foreign language sequence through the intermediate level (e.g., Arabic 102C, Armenian 102C, 105C, Hebrew 102C, Iranian 102C, Turkic Languages 102C, 112C, 116C). The language requirement can also be fulfilled in part or in total by taking a placement examination given through the appropriate language department. Each course must be taken for a letter grade.

**Transfer Students**
Transfer applicants to the African and Middle Eastern Studies premajor with 90 or more units must complete the following introductory courses prior to admission to UCLA: two courses from sociocultural anthropology, cultural geography, contemporary world history, and world literature and two courses from comparative politics, economic geography, macroeconomics, microeconomics, and introductory sociology. Transfer students must apply for the major by the end of fall quarter of their junior year.

Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

**The Major**
The major consists of International and Area Studies 191 (capstone seminar) and 11 upper-division courses divided among area studies and international themes courses. To count as one 4-unit course, 2-unit courses must either be taken twice or two courses from the same category (if applicable) may be taken. Each course must be taken for a letter grade, with a minimum overall grade-point average of 2.0.


**International Themes:** (1) Two international politics and markets courses from Anthropology 143, Eco-
The Major

The major consists of international and Area Studies 191 (capstone seminar) and 11 upper-division courses divided among area studies and international themes courses. To count as one 4-unit course, 2-unit courses must either be taken twice or two courses from the same category (if applicable) may be taken. Each course must be taken for a letter grade, with a minimum overall grade-point average of 2.0.


International Themes: (1) Two international politics and markets courses from Anthropology 143, Eco-

Asian Studies BA

Capstone Major

The Asian Studies major allows students to analyze the area or a subregion (e.g., Central Asia, East Asia, South Asia, Southeast Asia) from an interdisciplinary and modern perspective. The major seeks to ground students in broad international issues that they can then use to focus on particular concerns of that part of the world.

Learning Outcomes

The Asian Studies major has the following learning outcomes:

- In-depth analysis of a specific region or a thematic subject that spans regions
- Demonstrated critical understanding of issues relevant to a specific region or theme
- Demonstrated skills, including research, analysis, and writing
- Identification and analysis of appropriate sources, material evidence, and other forms of primary documents
- Demonstrated proficiency at collaborative engagement with peers through constructive feedback on written drafts and oral presentations
- Demonstrated proficiency at using peer feedback to enhance student’s own work
- Effective communication of complex ideas in a seminar setting
- Demonstrated effective oral and written communication of research findings
- Conception and execution of a project that identifies and engages with a specialized topic
- Working knowledge of scholarly discourse relative to a specialized topic

Admission

To be eligible to declare the Asian Studies major, students must have completed all nonlanguage preparation for the major courses and the foreign language courses through at least level 3 (elementary level). Any remaining language courses may be completed after students have been accepted to the major. Each preparation for the major course must be taken for a letter grade, and students must have a UC grade-point average of 2.0 or better in those courses. In addition, students must have earned a grade of C or better in International and Area Studies 1.

Premajor

Incoming freshman and transfer students may be admitted as Asian Studies premajors on acceptance to UCLA. Premajor students must apply for major standing at the end of fall quarter of their junior year; they are not automatically accepted into the major.

Preparation for the Major

Required: (1) International and Area Studies 1, (2) one area studies course from Art History 29, 31, Asian 30, 70A, 70B, 70C, Chinese 50 (or 50W), M60 (or M60W), Clusters 2SA, History 9A, 9C, 9E, 11B (or 11B4), 9F, 97M, 97N, 97T, International and Area Studies 31, 33, Japanese 50, 70, Korean 50, M60, Southeast Asian 146, Southeast Asian 146, Southeast Asian 160, or 90, (3) two international politics and markets courses from Economics 1, 2, Geography 4, 6, Political Science 50 (or 5OR), Sociology 1, (4) two international societies and cultures courses from Anthropology 3, Comparative Literature 1D (or 2D or 4D), Ethnomusicology M25, Geography 3, History 2B, 22, World Arts and Cultures 20, 33, and (5) one area-related foreign language sequence through the intermediate level (e.g., Chinese 6 or 6A, Filippino 6, Hindi-Urdu 100C, Indonesian 6, Japanese 6, Thai 6, Vietnamese 6). The language requirement can also be fulfilled in part or in total by taking a placement examination given through the appropriate language department. Each course must be taken for a letter grade.

Transfer Students

Transfer applicants to the Asian Studies premajor with 90 or more units must complete the following introductory courses prior to admission to UCLA: two courses from sociocultural anthropology, cultural geography, contemporary world history, and world literature and two courses from comparative politics, economic geography, macroeconomics, microeconomics, and introductory sociology. Transfer students must apply for the major by the end of fall quarter of their junior year. Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

Asian Studies BA

Capstone Major

The Asian Studies major allows students to analyze the area or a subregion (e.g., Central Asia, East Asia, South Asia, Southeast Asia) from an interdisciplinary and modern perspective. The major seeks to ground students in broad international issues that they can then use to focus on particular concerns of that part of the world.

Learning Outcomes

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- Demonstrated skills, including research, analysis, and writing
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- Demonstrated proficiency at using peer feedback to enhance student’s own work
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- Demonstrated effective oral and written communication of research findings
- Conception and execution of a project that identifies and engages with a specialized topic
- Working knowledge of scholarly discourse relative to a specialized topic

Admission

To be eligible to declare the Asian Studies major, students must have completed all nonlanguage preparation for the major courses and the foreign language courses through at least level 3 (elementary level). Any remaining language courses may be completed after students have been accepted to the major. Each preparation for the major course must be taken for a letter grade, and students must have a UC grade-point average of 2.0 or better in those courses. In addition, students must have earned a grade of C or better in International and Area Studies 1.

Premajor

Incoming freshman and transfer students may be admitted as Asian Studies premajors on acceptance to UCLA. Premajor students must apply for major standing at the end of fall quarter of their junior year; they are not automatically accepted into the major.

Preparation for the Major

Required: (1) International and Area Studies 1, (2) one area studies course from Art History 29, 31, Asian 30, 70A, 70B, 70C, Chinese 50 (or 50W), M60 (or M60W), Clusters 2SA, History 9A, 9C, 9E, 11B (or 11B4), 9F, 97M, 97N, 97T, International and Area Studies 31, 33, Japanese 50, 70, Korean 50, M60, Southeast Asian 146, Southeast Asian 146, Southeast Asian 160, or 90, (3) two international politics and markets courses from Economics 1, 2, Geography 4, 6, Political Science 50 (or 5OR), Sociology 1, (4) two international societies and cultures courses from Anthropology 3, Comparative Literature 1D (or 2D or 4D), Ethnomusicology M25, Geography 3, History 2B, 22, World Arts and Cultures 20, 33, and (5) one area-related foreign language sequence through the intermediate level (e.g., Chinese 6 or 6A, Filippino 6, Hindi-Urdu 100C, Indonesian 6, Japanese 6, Thai 6, Vietnamese 6). The language requirement can also be fulfilled in part or in total by taking a placement examination given through the appropriate language department. Each course must be taken for a letter grade.

Transfer Students

Transfer applicants to the Asian Studies premajor with 90 or more units must complete the following introductory courses prior to admission to UCLA: two courses from sociocultural anthropology, cultural geography, contemporary world history, and world literature and two courses from comparative politics, economic geography, macroeconomics, microeconomics, and introductory sociology. Transfer students must apply for the major by the end of fall quarter of their junior year. Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.
European Studies BA

Capstone Major

The European Studies major allows students to analyze the area or a subregion (e.g., Central and Eastern Europe, Mediterranean Europe, Scandinavia, Western Europe/European Union) from an interdisciplinary and modern perspective. The major seeks to ground students in broad international issues that they can then use to focus on particular concerns of that part of the world.

Learning Outcomes

The European Studies major has the following learning outcomes:

- In-depth analysis of a specific region or a thematic subject that spans regions
- Demonstrated critical understanding of issues relevant to a specific region or theme
- Demonstrated skills, including research, analysis, and writing
- Identification and analysis of appropriate sources, material evidence, and other forms of primary documents
- Demonstrated proficiency at collaborative engagement with peers through constructive feedback on written drafts and oral presentations
- Demonstrated proficiency at using peer feedback to enhance student’s own work
- Effective communication of complex ideas in a seminar setting
- Demonstrated effective oral and written communication of research findings
- Conception and execution of a project that identifies and engages with a specialized topic
- Working knowledge of scholarly discourse relative to a specialized topic

Admission

To be eligible to declare the European Studies major, students must have completed all nonlanguage preparation for the major courses and the foreign language courses through at least level 3 (elementary level). Any remaining language courses may be completed after students have been accepted to the major. Each preparation for the major course must be taken for a letter grade, and students must have a UC grade-point average of 2.0 or better in those courses. In addition, students must have earned a grade of C or better in International and Area Studies 1.

Premajor

Incoming freshman and transfer students may be admitted as European Studies premajors on acceptance to UCLA. Premajors must students apply for major standing at the end of fall quarter of their junior year; they are not automatically accepted into the major.

Preparation for the Major

Required: (1) International and Area Studies 1, (2) one area studies course from Central and East European Studies 91, Comparative Literature 1C, 2CW, 4CW, Dutch 10, English 88C, French 12, 14 (or 14W), 41, 60, German 50B, 59, 61A, History 1C (or 1CH), 97C, International and Area Studies 40, Italian 42B, 46, 50B, Portuguese 40A, Romanian 90, Russian 25 (or 25W), 30, 31, 32, 90B (or 90WB), Scandinavian 50 (or 50W), Slavic-90, Spanish 42, (3) two international politics and markets courses from Economics 1, 2, Geography 4, 6, Political Science 50 (or 50R), Sociology 1, (4) two international societies and cultures courses from Anthropology 3, Comparative Literature 1D (or 2DW or 4DW), Ethnomusicology 5, 20S, Geography 3, History 2B, 22, World Arts and Cultures 20, 33, and (5) one area-related foreign language sequence through the intermediate level (e.g., Czech 102C, Dutch 103C, French 6, German 6, Hungarian 102C, Italian 6, Polish 102C, Portuguese 3, Romanian 102C, Russian 6, Scandinavian 29, 105B, 106B, 107B, Serbian/Croatian 102C, Spanish 5, Ukrainian 102C, Yiddish 102C). The language requirement can also be fulfilled in part or in total by taking a placement examination given through the appropriate language department. Each course must be taken for a letter grade.

Transfer Students

Transfer applicants to the European Studies premajor with 90 or more units must complete the following introductory courses prior to admission to UCLA: two courses from sociocultural anthropology, cultural geography, contemporary world history, and world literature and two courses from comparative politics, economic geography, macroeconomics, microeconomics, and introductory sociology. Transfer students must apply for the major by the end of fall quarter of their junior year.

Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

The Major

The major consists of International and Area Studies 191 (capstone seminar) and 11 upper-division courses divided among area studies and international themes courses. To count as one 4-unit course, 2-unit courses must either be taken twice or two courses from the same category (if applicable) may be taken. Each course must be taken for a letter grade, with a minimum overall grade-point average of 2.0.


The area studies electives listed above (group 1) focus on contemporary issues of that region after 1750. Students may substitute a maximum of three upper-division courses with focus on earlier historical aspects of the region or on diasporas with origins related to the region toward the area studies electives as long the distribution between humanities and arts and social sciences is maintained. They may be selected from either of the following lists: humanities and arts group 2: French 114A, 114B, 115, 116, 117, 118, 169, German 170, Italian 102A, 102B, 103A, 103B, 110, 113, 114B, 116A, 116B, 140, Russian C124C, C124D, C124G, C124N, C124P, C124T, Scandinavian 142A, 143C, 154 or social sciences group 2: History 121A, 121B, 121C, 122A, 122B, 122C, 125A, 126, Political Science 111C.

Latin American Studies BA

Capstone Major

The Latin American Studies major allows students to analyze the area or a subregion (e.g., Amazonia, Caribbean, Central America, South America, Southern Cone) from an interdisciplinary and modern perspective. The major seeks to ground students in broad international issues that they can then use to focus on particular concerns of that part of the world.

Learning Outcomes

The Latin American Studies major has the following learning outcomes:

- In-depth analysis of a specific region or a thematic subject that spans regions
- Demonstrated critical understanding of issues relevant to a specific region or theme
- Demonstrated skills, including research, analysis, and writing
- Identification and analysis of appropriate sources, material evidence, and other forms of primary documents
- Demonstrated proficiency at collaborative engagement with peers through constructive feedback on written drafts and oral presentations
- Demonstrated proficiency at using peer feedback to enhance student’s own work
- Effective communication of complex ideas in a seminar setting
- Demonstrated effective oral and written communication of research findings
- Conception and execution of a project that identifies and engages with a specialized topic
- Working knowledge of scholarly discourse relative to a specialized topic
• Conception and execution of a project that identifies and engages with a specialized topic
• Working knowledge of scholarly discourse relative to a specialized topic

Admission
To be eligible to declare the Latin American Studies major, students must have completed all nonlanguage preparation for the major courses and the foreign language courses through at least level 3 (elementary level). Any remaining language courses may be completed after students have been accepted to the major. Each preparation for the major course must be taken for a letter grade, and students must have a UC grade-point average of 2.0 or better in those courses. In addition, students must have earned a grade of C or better in International and Area Studies 1.

Preparation for the Major
Incoming freshman and transfer students may be admitted as Latin American Studies premajors on acceptance to UCLA. Premajor students must apply for major standing at the end of fall quarter of their junior year; they are not automatically accepted into the major.

Required Upper-Division Courses (20 to 21 units):

- The Major consists of International and Area Studies 191 (capstone seminar) and 11 upper-division courses divided among area studies and international themes courses. To count as one 4-unit course, 2-unit courses must either be taken twice or two courses from the same category (if applicable) may be taken. Each course must be taken for a letter grade, with a minimum overall grade-point average of 2.0.


  - The area studies electives listed above (group 1) focus on contemporary issues of that region after 1750. Students may substitute a maximum of three upper-division courses with a focus on international and Area Studies majors (African and Middle Eastern Studies, Asian Studies, European Studies, Latin American Studies) the opportunity to design and conduct their own independent research under the guidance of a faculty adviser and consists of a three-term directed-study series of courses—International and Area Studies 198A, 198B, 198C—culminating in an honors thesis.

Admission
To enter the honors program, students must (1) have completed all preparation for the major requirements with a minimum 3.5 grade-point average in all upper-division coursework for the major, (2) obtain agreement from a faculty member to supervise their honors thesis, and (4) formally submit an application to the honors program. Application should normally be made during the junior year so as to best plan for completion of the honors thesis during the senior year. Contact the academic counselor for more details about the application, thesis requirements, and guidelines regarding the selection of a faculty thesis adviser.

Requirements
Honors are awarded to students who (1) complete all requirements for the major with a cumulative grade-point average of 3.5 or better in upper-division courses required for the major, (2) successfully complete courses 198A, 198B, and 198C, and (3) produce an honors thesis (approximately 35 to 50 pages) determined to be of honors quality by a committee of two faculty members—the chair of International and Area Studies and the faculty adviser of the student.

Honors and highest honors are recorded on the final transcript and diploma after students successfully complete the program.

African and Middle Eastern Studies Minor
The African and Middle Eastern Studies minor is designed for students who wish to augment their major with concerted study of the history, culture, and society of the Africa and the Middle East from an interdisciplinary and modern perspective. To enter the minor, students must be in good academic standing (overall grade-point average of 2.0 or better) and have completed all lower-division minor courses with a GPA of 2.0 or better in those courses.

Required Lower-Division Courses (13 to 15 units):

- International and Area Studies 1 and two international societies and cultures courses from Anthropology 3, Comparative Literature 1D (or 2DW or 4DW), Economics 1, 2, Ethnomusicology 5, M25, Geography 3, History 2B, 22, World Arts and Cultures 20, 33, and (5) two area-related foreign language sequences through the intermediate level (e.g., Spanish 3 or 11B, Spanish 5 or 7A), an indigenous language of Latin America such as Nahuatl, Quechua, or Zapotec, through that level. The language requirement can also be fulfilled in part or in total by taking a placement examination given through the appropriate language department. Each course must be taken for a letter grade.

Transfer Students
Transfer applicants to the Latin American Studies premajor with 90 or more units must complete the following introductory courses prior to admission to UCLA: two courses from sociocultural anthropology, cultural geography, contemporary world history, and world literature and two courses from comparative politics, economic geography, macroeconomics, microeconomics, and introductory sociology. Transfer students must apply for the major by the end of fall quarter of their junior year.

Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

Honors Program
The honors program is designed to offer highly motivated students pursuing one of the International and Area Studies majors (African and Middle Eastern Studies, Asian Studies, European Studies, Latin American Studies) the opportunity to design and conduct their own independent research under the guidance of a faculty adviser and consists of a three-term directed-study series of courses—International and Area Studies 198A, 198B, 198C—culminating in an honors thesis.

International and Area Studies / 507
The African Studies Minor is designed for students who wish to augment their major with concerted study of the history, culture, and society of East Asia—China, Korea, and Japan—from an interdisciplinary and modern perspective. To be admitted to the minor, students must be in good academic standing (overall grade-point average of 2.0 or better) and have completed all lower-division minor courses with a GPA of 2.0 or better in those courses.

**Required Lower-Division Courses (13 to 15 units):**
- International and Area Studies 1 and two international societies and cultures courses from Anthropology 3, Comparative Literature 1D (or 2D or 4D), Economics 1, 2, Ethnomusicology 5, M25, Geography 3, 4, 6, History 28, 22, Political Science 50 (or 50R), Sociology 1, World Arts and Cultures 20, 33. Students may substitute one area studies preparation course from (Afrikaans 40, Art History 28, Ethnomusicology 208, French 60, History 108, 971, or Portuguese 40A) toward the international societies and cultures preparation requirement.

**Required Upper-Division Courses (20 to 21 units):**
- Five area studies group 1 courses as follows: (1) two humanities and arts group 1 courses from Afrikaans 135, Art History C145A, C145B, Ethnomusicology 136A, C136B, 161E must be taken twice to equal one 4-unit course), French 121, 142, (2) two social sciences group 1 courses from Anthropology 135, 166P, M166Q, Geography 138, History 164B through 164E, 166B, 167A, 167B, 167C, 168B, Political Science 151A, 151B, 151C, and (3) one additional elective course selected from the group 1 lists above or from the group 2 list below.

The area studies electives listed above (group 1) focus on contemporary issues of that region after 1750. Students may substitute a maximum of one upper-division course with focus on earlier historical aspects of the region or on diasporas with origins related to the region toward the area studies additional elective category (item 3 above). The course may be selected from the following group 2 list: Ancient Near East M130, 150B, C165, Art History M110A, M110B, French 160, Geography 135, History M103A, M103B, 166A, 168A, or World Arts and Cultures C139.

One upper-division language course (advanced level) may be applied to item 3 above by petition to the chair of the program.

A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor. Each minor course must be taken for a letter grade, and students must have an overall grade-point average of 2.0 or better in the minor. Successful completion of the minor is indicated on the transcript and diploma.

### East Asian Studies Minor

The East Asian Studies minor is designed for students who wish to augment their major with concentrated study of the history, culture, and society of East Asia—China, Korea, and Japan—from an interdisciplinary and modern perspective. To enter the minor, students must be in good academic standing (overall grade-point average of 2.0 or better) and have completed all lower-division minor courses with a GPA of 2.0 or better in those courses.

**Required Lower-Division Courses (13 to 15 units):**
- International and Area Studies 1 and two international societies and cultures courses from Anthropology 3, Comparative Literature 1D (or 2D or 4D), Economics 1, 2, Ethnomusicology 5, M25, Geography 3, 4, 6, History 28, 22, Political Science 50 (or 50R), Sociology 1, World Arts and Cultures 20, 33. Students may substitute one area studies preparation course from (Art History 29, Asian 30, 70A, 70B, 70C, Chinese 50, 50W, M60, M60W, Clusters 25A, History 9C, 118, 97C, International and Area Studies 33, Japanese 50, 70, Korean 50, or M60) toward the international societies and cultures preparation requirement.

**Required Upper-Division Courses (20 to 21 units):**

The area studies electives listed above (group 1) focus on contemporary issues of that region after 1750. Students may substitute a maximum of one upper-division course with focus on earlier historical aspects of the region or on diasporas with origins related to the region toward the area studies additional elective category (item 3 above). The course may be selected from the following group 2 list: Ancient Near East M130, 150B, C165, Art History M110A, M110B, French 160, Geography 135, History M103A, M103B, 166A, 168A, or World Arts and Cultures C139.

One upper-division language course (advanced level) may be applied to item 3 above by petition to the chair of the program.

A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor. Each minor course must be taken for a letter grade, and students must have an overall grade-point average of 2.0 or better in the minor. Successful completion of the minor is indicated on the transcript and diploma.

### European Studies Minor

The European Studies minor is designed for students who wish to augment their major with concerted study of the history, culture, and society of Europe from an interdisciplinary and modern perspective. To enter the minor, students must be in good academic standing (overall grade-point average of 2.0 or better) and have completed all lower-division minor courses with a GPA of 2.0 or better in those courses.

**Required Lower-Division Courses (13 to 15 units):**
- International and Area Studies 1 and two international societies and cultures courses from Anthropology 3, Comparative Literature 1D (or 2D or 4D), Economics 1, 2, Ethnomusicology 5, M25, Geography 3, 4, 6, History 28, 22, Political Science 50 (or 50R), Sociology 1, World Arts and Cultures 20, 33. Students may substitute one area studies preparation course from (Comparative Literature 1C, 2CW, 4CW, Dutch 10, English 88G, French 12, 14, 14W, 41, 60, German 50B, 57, 69A through 61D, History 1C, 1CH, 97C, International and Area Studies 40, Italian 42, 46, 50B, Portuguese 40A, Romanian 90, Russian 25, 25W, 30, 31, 32, 90B, 90BW, Scandinavian 50, 50W, Slavic 90, or Spanish 42) toward the international societies and cultures preparation requirement.

**Required Upper-Division Courses (20 to 25 units):**
Latin American Studies Minor

The Latin American Studies minor is designed for students who wish to augment their major with a concerted study of the history, culture, and society of Latin America from an interdisciplinary and modern perspective.

To enter the minor, students must be in good academic standing (overall grade-point average of 2.0 or better) and have completed all lower-division minor courses with a GPA of 2.0 or better in those courses.

Required Lower-Division Courses (13 to 15 units): International and Area Studies 1 and two international societies and cultures courses from Anthropology 3, Comparative Literature 1D (or 2DW or 4DW), Economics 1, 2, Ethnomusicology 5, M25, Geography 1, 4, 6, History 2B, 22, Political Science 50 (or 50R), Sociology 1, World Arts and Cultures 20, 33. Students may substitute one area studies preparation course (from Clusters 26A, History 8A, 8AH, 8B, 8C, 97E, International and Area Studies 50, Portuguese 40B, 46, or Spanish 44) toward the international societies and cultures preparation requirement.

Required Upper-Division Courses (20 to 25 units): Five area studies group 1 courses as follows: (1) two humanities and arts group 1 courses from Art History CI42A, CI42B, 144, Comparative Literature 177, English 135, Ethnomusicology M108A, 108B, 161K (must be taken twice to equal one 4-unit course), Film and Television 106C, 107, Portuguese 130A, 130B, 141B, 142A, 142B, Spanish 120, World Arts and Cultures C139, (2) two social sciences group I courses from African American Studies M154C, M154D, M178, Anthropology 161, 162, Chicana and Chicano Studies 111, 117, M125, M131, 143, 151, 169, Community Health Sciences 132, Gender Studies 129, M144, M147C, Geography IS3, 172A, 172C, History 159, 160A, 160B, 162A, 162B, 162C, Political Science 124C, 154A, 154F, Public Health M106, Sociology 186, 191J, and (3) one additional elective course selected from the group 1 lists above or from the group 2 list below.

The area studies electives listed above (group 1) focus on contemporary issues of that region after 1750. Students may substitute a maximum of one upper-division course with focus on earlier historical aspects of the region or on diasporas with origins related to the region toward the area studies additional elective category (item 3 above). The course may be selected from the following group 2 list: French 114A, 114B, 115, 116, 118, 149, German 170, History 121A, 121B, 121C, 122A, 122B, 122C, 125A, 126, Italian 102A, 102B, 103A, 103B, 110, 113, 114B, 116A, 116B, 140, Political Science 111C, Russian C124C, C124D, C124E, C124N, C124P, C124T, Scandinavian 142A, 143C, or 154.

One upper-division language course (advanced level) may be applied to item 3 above by petition to the chair of the program. A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor. Each minor course must be taken for a letter grade, and students must have an overall grade-point average of 2.0 or better in those courses.

South Asian Studies Minor

The South Asian Studies minor is designed for students who wish to augment their major with a concerted study of the history, culture, and society of South Asia from an interdisciplinary and modern perspective.

To enter the minor, students must be in good academic standing (overall grade-point average of 2.0 or better) and have completed all lower-division minor courses with a GPA of 2.0 or better in those courses.

Required Lower-Division Courses (13 to 15 units): International and Area Studies 1 and two international societies and cultures courses from Anthropology 3, Comparative Literature 1D (or 2DW or 4DW), Economics 1, 2, Ethnomusicology 5, M25, Geography 1, 4, 6, History 2B, 22, Political Science 50 (or 50R), Sociology 1, World Arts and Cultures 20, 33. Students may substitute one area studies preparation course (from Art History 31, History 9A, 97M, International and Area Studies 31, Southeast Asian M60, or 90) toward the international societies and cultures preparation requirement.

Required Upper-Division Courses (20 to 21 units): Five area studies group 1 courses as follows: (1) two humanities and arts group 1 courses from Art History CI42A, CI42B, 144, Comparative Literature 177, English 135, Ethnomusicology M108A, 108B, 161K (must be taken twice to equal one 4-unit course), Film and Television 106C, 107, Portuguese 130A, 130B, 141B, 142A, 142B, Spanish 120, World Arts and Cultures C139, (2) two social sciences group I courses from African American Studies M154C, M154D, M178, Anthropology 161, 162, Chicana and Chicano Studies 111, 117, M125, M131, 143, 151, 169, Community Health Sciences 132, Gender Studies 129, M144, M147C, Geography IS3, 172A, 172C, History 159, 160A, 160B, 162A, 162B, 162C, Political Science 124C, 154A, 154F, Public Health M106, Sociology 186, 191J, and (3) one additional elective course selected from the group 1 lists above or from the group 2 list below.

The area studies electives listed above (group 1) focus on contemporary issues of that region after 1750. Students may substitute a maximum of one upper-division course with focus on earlier historical aspects of the region or on diasporas with origins related to the region toward the area studies additional elective category (item 3 above). The course may be selected from the following group 2 list: Anthropology 116P, Art History 154A, 154B, Asian 164, Asian American Studies M172A, 172B, History 174A, South Asian CM160, or 185.

One upper-division language course (advanced level) may be applied to item 3 above by petition to the chair of the program. A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor. Each minor course must be taken for a letter grade, and students must have an overall grade-point average of 2.0 or better in the minor. Successful completion of the minor is indicated on the transcript and diploma.
International and Area Studies

Lower-Division Courses

1. Introduction to International and Area Studies. (5) Lecture, three hours; discussion, one hour. Introduction to international and area studies from interdisciplinary framework, covering themes related to international politics and markets, as well as international societies and cultures, to illuminate and clarify profoundly international character of world we live in and to introduce set of contemporary issues and challenges that cross borders and affect every region of world. P/ NP or letter grading.

M7A-M7B-M7C. Elementary Yoruba. (4–4–4) (Same as African American Studies M7A-M7B-M7C.) Lecture, five hours. Course M7A is requisite to M7B, which is requisite to M7C. Introduction to Yoruba, one of major languages of West Africa, which is spoken widely throughout southwest Nigeria, Benin, and Togo. Coverage of basic Yoruba grammar, with equal emphasis on reading, writing, conversation, and comprehension. P/ NP or letter grading.

10. Explorations in International Studies. (2) Lecture, two hours. Exploration of international events through active learning, designed to develop understanding of international issues and diverse skill set, including persuasive speaking, public thinking, research skills, problem solving, teamwork, expository writing, and leadership skills. May be repeated for credit without limitation. P/ NP grading.

19. Fiat Lux Freshman Seminars. (1 Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/ NP grading.

31. Introduction to Southeast Asia. (5) Lecture, three hours; discussion, one hour (when scheduled). Interdisciplinary course designed as introduction to modern Southeast Asia. P/ NP or letter grading.

33. Introduction to East Asia. (5) Lecture, three hours; discussion, one hour (when scheduled). Interdisciplinary course designed as introduction to modern East Asia. P/ NP or letter grading.

40. Introduction to Europe. (5) Lecture, three hours; discussion, one hour (when scheduled). Interdisciplinary course designed as introduction to modern Europe. P/ NP or letter grading.

50. Introduction to Latin America. (5) Lecture, three hours; discussion, one hour (when scheduled). Interdisciplinary course designed as introduction to modern Latin America. P/ NP or letter grading.

89. Honors Seminars. (1 Seminar, three hours. Limited to 20 students. May be repeated for credit. May not be repeated for credit with same topic. P/ NP or letter grading.

89HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to lower-division lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/ NP or letter grading.

99. Student Research Program. (1 to 2) Tutorial (supervised research or other scholarly work), three hours per week per unit. Level of research for lower-division students under guidance of faculty mentor. Students must be in good academic standing and enrolled in minimum of 12 units (excluding this course). Individual contract required; consult Undergraduate Research Center. May be repeated. P/ NP grading.

Upper-Division Courses

110A-110B. Field Studies in International and Area Studies. (4–4) Seminar, three hours. Exploration of culture, economy, history, and politics of important locations around world. Prerequisites: lower-division courses. May be repeated for credit. P/ NP or letter grading.

111A. Art of Citizen Diplomacy. (2) Seminar, two hours. Examination of theory, tools, and practice of civic engagement by highlighting student leadership. Provides students with practical tools in leadership, civic responsibility, and conflict resolution in order to tackle global issues such as climate change, gender equality, income equality, and human rights. Class activities include understanding global connections that can build bridges between cultures. Letter grading.

111B. Introduction to Experiential Learning Abroad. (2) Seminar, two hours. Intended for students planning to participate in international program during upcoming summer. Practical tools in effective learning, intercultural understanding, understanding multiple narratives, sharpening leadership emphasis on reading, writing, conversation, and comprehension. P/ NP or letter grading.

111C. Engaging Global Cultures: Reflecting on Fieldwork. (2) Seminar, two hours. Academic event for students who have attended study abroad programs to reflect on and share their experiences in order to enhance benefits of program in which they participated. Practical tools in active learning and applying knowledge acquired on trip to current events. Students analyze complex layers of intercultural communication, world affairs, and conflict. Post-study abroad follow-up activities, including presentations on current events and in community, other on-campus education activities, and writing of journal article. Letter grading.


116. Selected Topics in International and Area Studies. (4) Lecture, three hours; discussion, one hour (when scheduled). Examination of one or more topics related to international and area studies. May be repeated for credit with topic change. P/ NP or letter grading.

188. Special Courses in International and Area Studies. (4) Seminar, three hours. Program-sponsored experimental or temporary courses, such as those taught by resident or visiting faculty members. May be repeated for credit with topic change. Letter grading.

189. Advanced Honors Seminars. (1 Seminar, three hours. Limited to 20 students. Designed as adjunct to undergraduate lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/ NP or letter grading.

189HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designated as adjunct to upper-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units contract required. Honors content noted on transcript. Letter grading.

191. Variable Topics Senior Research Seminars: International and Area Studies. (4) Lecture, three hours. Organization on topics basis with readings, discussions, papers, and research. May be repeated for credit. P/ NP or letter grading.
Sustainability, Geography)
Christopher L. Erickson, PhD, ex officio (Management)
Edmond Keller, PhD (Political Science)
Nancy E. Levine, PhD (Anthropology)
Michael F. Lofchie, PhD (Political Science)
Shaina S. Potts, PhD (Geography)
Anarya Roy, PhD (Geography, Social Welfare, Urban Planning)
Eric S. Sheppard, PhD (Geography)

Scope and Objectives

Through an interdisciplinary lens, the International Development Studies major offers students the opportunity to study, analyze, and critically assess the social, political, and economic forces that, throughout history, have shaped inequality in the modern world. The central objective of the program is to engage students with debates around the widening patterns of disparities of wealth, power, privilege, and access to social justice that occur both within and between the countries of the global north and global south. The curriculum introduces students to key theoretical debates around development and to detailed case studies of successful and failed interventions; and provides methodological training. Core and elective courses illuminate the extent to which realities that affect people often arise owing to economic class, gender, race, ethnicity, religion, migrant status and other identities, and investigate the impact of policy solutions and forms of citizen engagement on communities and the environment. Students are trained to both think critically about these issues and explore ways to engage with development work at home and abroad through experiential learning, internships, immersive study abroad programs, independent faculty-guided research, and collaborative group projects.

Undergraduate Study

The International Development Studies major is a designated capstone major. Seniors must complete an advanced seminar that provides unique opportunity to work closely with a faculty member on a focused topic of research. Students completing the capstone should be able to demonstrate skills and expertise acquired in earlier coursework; identify, analyze, and select relevant data from primary and secondary sources; acquire a working knowledge of broader scholarly discourse; conceive and execute an original research paper; and engage with a community of scholars, presenting their work to peers as well as providing feedback on peers’ work. The seminar culminates in a written paper or project and a formal class report.

International Development Studies BA

Capstone Major

Learning Outcomes

The International Development Studies major has the following learning outcomes:

- Demonstrated specific skills and expertise, including original research, data analysis, clear and cogent writing, and general knowledge/critique of majors issues in the field
- Identification, analysis, selection, and use of relevant data from primary and secondary sources
- Working knowledge and formation of an opinion about diverse perspectives and discourses
- Design of an original research project that identifies, engages, and addresses a focused problem
- Active engagement with a community of scholars by expressing viewpoints through robust and informed discourse

Admission

Admission to the International Development Studies major is by application only. To be eligible to apply, students must have first completed all non-language preparation courses and the foreign language courses through at least level 3 (elementary level). Any remaining language courses may be completed after students have been accepted to the major. Each preparation for the major course must be taken for a letter grade, and students must have a UC grade-point average of 2.0 or better in those courses.

The application period is once per year, and students must apply no later than the end of fall quarter of their junior year.

Meeting the above minimums does not guarantee admission to the program. Admission is on a competitive basis, using the above qualifications as minimum standards for consideration.

Premajor

Incoming freshman and transfer students may be admitted as International Development Studies premajors on acceptance to UCLA. Premajor students must apply for major standing at the end of fall quarter of their junior year; they are not automatically accepted into the major.

Preparation for the Major

Required: (1) International Development Studies 1; (2) one course from Economics 1, 2, Geography 4, Public Affairs 30, or 40; (3) one methods course from Economics 41, Education 35, History 96W, Political Science 6, 6R, Public Affairs 60, Sociology 20, Statistics 10, or 12; (4) three social sciences/area studies courses, each from a different category, selected from (a) Anthropology 3, (b) Gender Studies 10, (c) Geography 3 5, 6, (d) Global Studies 1, International and Area Studies 1, 31, 33, 50, (e) History 8A, 8B, 8C, 9A, 9D, 9E, 108, 108W, 11B, 12B, 12C, 22, (f) Political Science 20, 50, (g) Sociology 1, (h) Comparative Literature 4DW, Spanish 44; and (5) demonstrated proficiency in one modern foreign language equivalent to level 6 at UCLA. Each course must be taken for a letter grade.

Transfer Students

Transfer applicants to the International Development Studies premajor with 90 or more units must complete the following introductory courses prior to admission to UCLA: two introductory macroeconomics, microeconomics, and/or economic geography courses; one statistics course; three courses, each from a separate category, selected from socio-cultural anthropology, cultural or economic geography, cultural area studies, world history, compar-
tive politics, and introductory sociology; and demonstrated proficiency equivalent to level 3 at UCLA in one modern foreign language. Transfer students must apply for the major by the end of fall quarter of their junior year.

Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

The Major

Each course must be taken for a letter grade. Students must earn a grade of C or better in International Development Studies 110, M120, 130, and 140; no more than one of these three courses may be repeated. All three core courses must be taken prior to the capstone senior seminar 191 course.

Required: (1) Three core courses selected from International Development Studies 110, M120, 130, and 140; (2) capstone seminar course: International Development Studies 191; (3) one research methodology course from Anthropology 138P, Asian American Studies 103, C142A, C142B, Chicana and Chicano Studies M119, M122, 123, Economics 103, Political Science 170A, Public Affairs 115, 116, Sociology 113, Statistics 112, Urban Planning M122; (4) three social and critical theory courses, each from a different department, from Anthropology 130, 134, 143, 146, 147, Economics 111, 112, 134, Environment M125, M133, M161, Gender Studies 102, 103, Geography M125, M127, 130, 140, 141, 148, 150, 151, 158, International Development Studies 110 or M120 or 130 or 140 (if not taken under item 1), M150, Political Science 122A, M122B, 124A, 167D, 168, Public Affairs 110, Sociology 101, 102, M115, 122, 123, 182, 183, 191D, Urban Planning M110, 121, M160, CM1b (5) two regional courses, either from the same or separate developing regions of the world (East Asia and East Central Asia, Eastern Europe and West Central Asia, Latin America and Caribbean Basin, Middle East and North Africa, South and Southeast Asia and Pacific Islands, Sub-Saharan Africa) and one disciplinary elective listed below:


Honors Program

Majors who have completed International Development Studies 110, M120, and 130 and who have a 3.5 grade-point average in all courses offered for the major are eligible to formally apply for the honors program. In addition to completing all courses required for the major, students must take courses 198A, 198B, and 198C, in which they research, write, and present an honors thesis. To receive honors at graduation, students must have at least a 3.5 GPA in courses applied toward the major (including 198A, 198B, 198C) and an overall GPA of 3.0.

Highest honors are awarded to students who complete the major (including courses 198A, 198B, 198C) with a 3.75 GPA and who produce an exceptional thesis.

Study Abroad

International Development Studies majors are highly encouraged to study abroad in developing areas of the world. Students can do so through a variety of programs with various lengths (summer or during the academic year). More information about study abroad programs is available through the UCLA International Education Office. Contact the office by e-mail, in person at 1332 Murphy Hall, or by phone at 310-625-4995.

International Development Studies Lower-Division Courses

1. Introduction to International Development Studies, (5) Lecture, three hours; discussion, one hour. Exploration of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

9. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

90. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to lower-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

99. Student Research Program. (1 to 2) Tutorial (supervised research or other scholarly work), three hours per week per unit. Entry-level research for lower-division students under guidance of faculty mentor. Students must be in good academic standing and enrolled in minimum of 12 units (excluding this course). Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP grading.

Upper-Division Courses

110. Culture, Power, and Development. (4) Lecture, three hours; discussion, one hour (when scheduled). Requisite: course 1. Broad introduction to theoretical traditions in development studies, with focus on dynamics of culture, power, markets, states and social movement, with selected conflict, developmental, and comparative case analysis across Global South and North. Letter grading.

M120. Political Economy of Development. (4) (Same as Political Science M167C.) Lecture, three or four hours; discussion, one hour (when scheduled). Requisite: course 1. Political economy approach to puzzle of why some countries are rich and others are poor and why, among latter, some have been able to achieve rapid rates of economic growth whereas others have not. Explanation and review of logic behind most important arguments that have been advanced to account for differences across countries in rates and levels of economic development. Letter grading.

130. Theory and History in International Development. (4) Lecture, three hours; discussion, one hour (when scheduled). Requisite: course 1. Social scientific survey of debates over policies contributing to economic development and underdevelopment. Topics include measurement and statistics, social and industrial policies, inequality, poverty, and historical differences for development paths across Africa, Asia, Europe, Asia, and Latin America. Letter grading.

140. Decolonizing Political Economy: Colonialism and Development. (4) Lecture, three hours; discussion, one hour (when scheduled). Requisite: course 1. Introduction to approaches and intellectual traditions of critical development studies. Violence of colonization and struggle for decolonization were two of defining processes of 20th century. Consideration of how development as global good can be reconciled with its origins in colonialism, and how development became hegemonic way of imagining decolonization. Particular focus on voices of critique and specific emphasis to models of development that emerged from Africa, Middle East, and South Asia. Discussion of relationship between rival notions of development and competing ideas of international relations. Letter grading.

M150. Political Economy of Climate Change. (4) (Same as Political Science M152.) Lecture, three hours; discussion, one hour (when scheduled). Requisite: course 1. Stand causes, consequences, and policies to address—or not addressing—extraordinary challenge of mitigating, rather than adapting to, climate change; and concentration on energy use, rather than agriculture, forestry, and land use. Letter grading.
Required Upper-Division Courses (28–32 units): (1) one core course: Sociology 151 or 152; (2) four elective courses, from at least two departments, selected from Asian American Studies M130C, M166A, 167, Chicana and Chicano Studies 120, M124, M126, 164SL, C179; Economics 103, 151, English 134, German 175, History M54A, 146B, 146C, Political Science M43C, M181B, Psychology 129C, 133G, Slavic M114; Sociology 116, 154, 156, Urban Planning 141; (3) two courses, International Migration Studies 155 and 199, to include an advanced theory course, and a thesis tutorial culminating in a thesis.

Students who take both core courses may apply the second course toward the elective requirement. This minor culminates in a thesis. A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor. Each minor course must be taken for a letter grade of C− or better. Successful completion of the minor is indicated on the transcript and diploma.

International Migration Studies

Lower-Division Courses

19. Fiat Lux Freshman Seminars. (1 Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

99. Student Research Program. (1 to 2 Tutorial (supervised research or other scholarly work), three hours per week per unit. Entry-level research for lower-division students under guidance of faculty mentor: Students must be in good academic standing and enrolled in minimum of 12 units (excluding this course). Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP grading.

Upper-Division Courses


193. Colloquia and Speaker Series. (2 Seminar, two hours. Introduction to current scholarship in field of international migration studies or of topics related to guest speaker series. May be repeated for credit. P/NP grading.

**ISLAMIC STUDIES**

See Near Eastern Languages and Cultures

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### ITALIAN

**College of Letters and Science**

212 Royce Hall
Box 951535
Los Angeles, CA 90095-1535

**Italian**

310-825-1940
Dominic R. Thomas, PhD, Chair

**Professors**

John A. Agnew, PhD
Massimo Ciavolella, PhD (Franklin D. Murphy Professor of Italian Renaissance Studies)
Thomas J. Harrison, PhD
Lucia Pe, PhD, Dottore in Lettere
Stefania Tutino, PhD

**Professors Emeriti**

Luigi Ballerini, Dottore in Lettere
Franco Betti, PhD
Marga Cottino-Jones, PhD, Dottore in Lettere
Edward F. Tuttle, PhD

**Associate Professors**

Andrea Moudarres, PhD
Peter J. Stacey, PhD

**Senior Lecturer SOE**

Elisa A. Tognozzi, PhD

**Lecturer**

Hoang T. M. Truong, PhD

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### Scope and Objectives

Italian art and letters provide an invaluable key to understanding many facets of European civilization. Examined in its own right or studied comparatively, Italian culture offers unmatched rewards. The Department of Italian faculty members view transmitting the Italian language as inseparable from transmission of the culture, so students consider the language, literature and culture. While literature courses constitute the bulk of the program, good knowledge of the language is requisite to most upper-division literature courses credited toward the major in Italian. The uniqueness of Italian is stressed at all levels of study. Detailed information on programs and specific degree requirements is available from the department.

### Learning Outcomes

The Italian major has the following learning outcomes:

- Demonstrated mastery of an area of Italian culture, defined as Italian language, literature, traditions, geography, contemporary Italian life, and contributions of Italians to the world
- Working knowledge of scholarly discourse related to specialized topics
- Demonstrated critical thinking
- Conception and execution of a project in Italian that identifies and engages with a specialized topic
- Information literacy by identifying and analyzing appropriate primary sources
- Demonstrated good written and oral communication skills, evidenced by a research project and presentation of work to peers under guidance of a designated faculty mentor

**Preparation for the Major**

*Required:* Italian 1, 2, 3, 4, 5, 6, and one course from 42A, 42B, 42C, 46, 50A, or 50B.

**Transfer Students**

Transfer applicants to the Italian major with 90 or more units must complete the following introductory courses prior to admission to UCLA: two years of Italian and one Italian civilization or culture course.

### Italian and Special Fields BA

**Capstone Major**

Students with special interests or professional goals may select the Italian and Special Fields major, with coursework divided between Italian and a collateral field. Study programs fulfilling requirements for the major have been developed with the departments and programs listed below.

**Transfer Students**

Transfer applicants to the Italian and Special Fields major with 90 or more units must complete the following introductory courses prior to admission to UCLA: two years of Italian and related courses in civilization, culture, history, linguistics, literature, and closely related languages.

Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

**Learning Outcomes**

The Italian and Special Fields major has the following learning outcomes:

- Demonstrated mastery of an area of Italian culture, defined as Italian language, literature, traditions, geography, contemporary Italian life, and contributions of Italians to the world
- Demonstrated critical thinking
- Conception and execution of a project in Italian that identifies and engages with a specialized topic in a field related to Italian
- Information literacy by identifying and analyzing appropriate primary sources
- Demonstrated good written and oral communication skills, evidenced by a research project and presentation of work to peers under guidance of a designated faculty mentor
- Working knowledge of scholarly discourse related to a specialized topic

### Anthropology Field

**Preparation for the Major**

*Required:* Italian 1, 2, 3, 4, 5, 6, and one course from 42A, 42B, 42C, 46, 50A, 50B; Anthropology 2 or 3, and 4.

**The Major**

*Required:* Italian 100, 199B (senior capstone course), and three courses from 103A through 191 selected in consultation with the undergraduate adviser; five courses from Anthropology 100, 111, 130, 136A, 136B, 137P, 137Q, 138P, 140, 143, M145P, M145Q, 147, M150, 151 selected in consultation with the undergraduate adviser.

### Art History Field

**Preparation for the Major**

*Required:* Italian 1, 2, 3, 4, 5, 6, and one course from 42A, 42B, 42C, 46, 50A, 50B; Art History 20 or 21, 22, 23.
The Major
Required: Italian 100, 199B (senior capstone course), and three courses from 103A through 191 selected in consultation with the undergraduate adviser; five courses from Art History M113A, M113B, M113C, CM115A through 115E, 121A through 121D, C125A, 127A, 127B, 130, 132, 185 selected in consultation with the undergraduate adviser.

Classics Field
Preparation for the Major
Required: Italian 1, 2, 3, 4, 5, 6, and one course from 42A, 42B, 42C, 46, 50A, 50B; Classics 10 or 20, 40W or 41W; and Greek I, 2, 3 or Latin I, 2, 3, or equivalent.

The Major
Required: Italian 100, 199B (senior capstone course), and three courses from 103A through 191 selected in consultation with the undergraduate adviser; Greek 100 or Latin 100, two courses from Classics 141 through 197, and two courses from Greek 101A through 133 or Latin 101 through 133 (graduate seminars may be substituted for upper-division author courses) selected in consultation with the undergraduate adviser.

English Field
Preparation for the Major
Required: Italian 1, 2, 3, 4, 5, 6, and one course from 42A, 42B, 42C, 46, 50A, 50B, English Composition 3, English 4W, 10A, 10B, 10C.

The Major
Required: Italian 100, 199B (senior capstone course), and three courses from 103A through 191 selected in consultation with the undergraduate adviser; five courses from English 100 through 188 selected in consultation with the undergraduate adviser.

Film and Television Field
Preparation for the Major
Required: Italian 1, 2, 3, 4, 5, 6, 46.

The Major
Required: Italian 100, 199B (senior capstone course), and three courses from 103A through 191 selected in consultation with the undergraduate adviser; five courses from Film and Television 106B, 106C, 107, 108, 112, 113, 114 selected in consultation with the undergraduate adviser.

French Field
Preparation for the Major
Required: Italian 1, 2, 3, 4, 5, 6, and one course from 42A, 42B, 42C, 46, 50A, 50B; French I, 2, 3, 4, 5, 6, and 12 or 14.

The Major
Required: Italian 100, 199B (senior capstone course), and three courses from 103A through 191 selected in consultation with the undergraduate adviser; five courses from French 108 through 169 selected in consultation with the undergraduate adviser.

Gender Studies Field
Preparation for the Major
Required: Italian 1, 2, 3, 4, 5, 6, and one course from 42A, 42B, 42C, 46, 50A, 50B; Gender Studies 10.

The Major
Required: Italian 100, 199B (senior capstone course), and three courses from 103A through 191 selected in consultation with the undergraduate adviser; five courses from Gender Studies 102 through M191E selected in consultation with the undergraduate adviser.

History Field
Preparation for the Major
Required: Italian 1, 2, 3, 4, 5, 6, and one course from 42A, 42B, 42C, 46; one course from History 1A, 18, 1C, 20, 21, 22.

The Major
Required: Italian 100, 199B (senior capstone course), and three courses from 103A through 191 selected in consultation with the undergraduate adviser; five courses from History 100 through 188 selected in consultation with the undergraduate adviser.

Linguistics Field
Preparation for the Major
Required: Italian 1, 2, 3, 4, 5, 6, Linguistics 20, and three terms of a second foreign language other than Italian.

The Major
Required: Italian 100, 199B (senior capstone course), and three courses from 103A through 191 selected in consultation with the undergraduate adviser; Linguistics 103, 120A, 120B, and two courses from Italian 110 through 191B selected in consultation with the undergraduate adviser.

Music History Field
Preparation for the Major
Required: Italian 1, 2, 3, 4, 5, 6, two courses from Music History M10A, M10B, M10C.

The Major
Required: Italian 100, 199B (senior capstone course), and three courses from 103A through 191 selected in consultation with the undergraduate adviser; five courses from Musicology 135A, 135B, 135C, 191A through 191G selected in consultation with the undergraduate adviser.

Philosophy Field
Preparation for the Major
Required: Italian 1, 2, 3, 4, 5, 6, and one course from 42A, 42B, 42C, 46, 50A, 50B; one course from Philosophy 1 through 31.

The Major
Required: Italian 100, 199B (senior capstone course), and three courses from 103A through 191 selected in consultation with the undergraduate adviser; two courses from Philosophy 100A, 100B, 100C, and three courses from M101A through 191 selected in consultation with the undergraduate adviser.

Political Science Field
Preparation for the Major
Required: Italian 1, 2, 3, 4, 5, 6, and one course from 42A, 42B, 42C, 46, 50A, 50B; Political Science 10, 20, 30, 40, 50.

The Major
Required: Italian 100, 199B (senior capstone course), and three courses from 103A through 191 selected in consultation with the undergraduate adviser; five courses from Political Science M105 through 179 selected in consultation with the undergraduate adviser.

Portuguese Field
Preparation for the Major
Required: Italian 1, 2, 3, 4, 5, 6, and one course from 42A, 42B, 46, 50A, 50B; Portuguese I, 2, 3, 25 (or 26 or equivalent as determined by placement test), 46.

The Major
Required: Italian 100, 199B (senior capstone course), and three courses from 103A through 191 selected in consultation with the undergraduate adviser; five courses from Portuguese 130A through 191 selected in consultation with the undergraduate adviser.

Spanish Field
Preparation for the Major
Required: Italian 1, 2, 3, 4, 5, 6, and one course from 42A, 42B, 46, 50A, 50B; Spanish I, 2, 3, 4, 5, 25 (or equivalent as determined by placement test), 42 or 44.

The Major
Required: Italian 100, 199B (senior capstone course), and three courses from 103A through 191 selected in consultation with the undergraduate adviser; Spanish 120 and four courses from 130 through 191B selected in consultation with the undergraduate adviser.

Theater Field
Preparation for the Major
Required: Italian 1, 2, 3, 4, 5, 6, and one course from 42A, 42B, 42C, 46, 50A, 50B.

The Major
Required: Italian 100, 199B (senior capstone course), and three courses from 103A through 191 selected in consultation with the undergraduate adviser; Theater 101A, 101B, and three courses from 102A through M114 selected in consultation with the undergraduate adviser.
Study in Italy

Students are encouraged to spend up to one year in Italy either to (1) honor with a double major or minor, or (2) study in an Italian university. They are also urged to take advantage of summer language workshops and study programs, including UCLA programs in Italy and Los Angeles. For additional information, contact the Education Abroad Program, 1332 Murphy Hall; or the Summer Sessions office, 1331 Murphy Hall.

Honors Program

Admission

The honors program provides exceptional students an opportunity for advanced research and study, under the guidance of a faculty member, that leads to the completion of an honors thesis. Majors in Italian and in Italian and Special Fields with an overall grade-point average of 3.25 and a 3.5 GPA or better in Italian courses are eligible to participate in the honors program. Applications should be made during the last term of the junior year or early in the senior year. Contact the department adviser for more information.

Requirements

To qualify for graduation with honors, Italian majors must complete all requirements for the major and Italian 198 in the last term of the senior year in which they write a 15- to 20-page thesis in Italian on a subject expanding on one or more of the upper-division courses they have taken. The thesis is written under the guidance of a departmental faculty member.

To qualify for graduation with honors, Italian and Special Fields majors must complete all requirements for the major and Italian 198 in which they write a 15- to 20-page thesis in Italian that combines their two disciplines of study. The thesis is written under the guidance of a departmental faculty member.

Successful completion of the honors program is indicated on the transcript and diploma.

Italian Minor

To enter the Italian minor, students must have an overall grade-point average of 2.0 or better.

Required Lower-Division Courses (12 units): Italian 5, 6, and one course from 42A, 42B, 46, 50A, 50B.

Required Upper-Division Courses (20 units): Italian 100 and four additional Italian courses. Three of the four courses must be taught in Italian.

A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor.

Each minor course must be taken for a letter grade, and students must have an overall grade-point average of 2.0 or better in the minor. Successful completion of the minor is indicated on the transcript and diploma.

Graduate Study

Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Division website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Graduate Degrees

The Department of Italian offers Master of Arts (MA), Candidate in Philosophy (CPhil), and Doctor of Philosophy (PhD) degrees in Italian.

Italian

Lower-Division Courses

1. Elementary Italian—Beginning. (4) Lecture, five hours. P/NP or letter grading.


7. Intensive Italian. (12) Lecture, 20 hours. Intensive language program equivalent to first year of college Italian (courses 1, 2, 3) and designed to develop basic language skills. Offered in summer only. P/NP or letter grading.

8. Fiat Lux Freshman Seminars. (1 to 2) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

9. Italian through Ages in English: Saints and Sinners in Early Modern Italy. (5) Lecture, four hours; discussion, one hour. Examination of issues of cultural hegemony, political power, and religious freedom, and the internal conflict through Italy’s early modern literary and artistic production. Texts may include Dante’s Divine Comedy, Boccaccio’s Decameron, Saint Catherine’s letters, Machiavelli’s The Prince, and Galilei’s scientific writings. Works may include those of Raphael and Michelangelo, as well as Bernini’s sculptures. P/NP or letter grading.

10. Italian through Ages in English: Modern and Contemporary Italy. (5) Lecture, four hours; discussion, one hour. Cultural and political developments from 18th century to present. Topics include Beccaria and opposition to death penalty and absolutism; Garibaldi; Italian Risorgimento, national liberation, and unification; Lombroso and criminology in new Italy; Mussolini and Fascism; Gramsci and Communism; Italian Catholicism; Berlusconi and media; migration and today’s multilingual Italy. Assigned work includes relevant literature and memoirs, music, and film, with emphasis on Italy’s modern history and contemporary art and culture.

11. Upper-Division Courses

42. Italian and American Culture. (4) Lecture, four hours; discussion, one hour. Profile of Italian history and culture through analysis of cultural and literary works. Special emphasis on late Middle Ages, Renaissance, and Risorgimento. P/NP or letter grading.

46. Italian Cinema and Culture in English. (5) Lecture/screenings, five hours; discussion, one hour. Special topics in Italian culture as reflected and reinforced by the nation’s prime artform, stressing aesthetics and ideology of films, contemporary Italian history, and politics. Rotating topics include sex and politics, comedy, integration, family networks, and neorealism. P/NP or letter grading.

50A-50B. Masterpieces of Italian Literature in English. (5-5) Lecture, four hours; discussion, one hour. P/NP or letter grading. 50A. Middle Ages to Baroque. Leading philosophical, religious, and sociopolitical issues in Europe, examined in authors such as St. Francis, Dante, Boccaccio, Petrarch, Lorenzo de’ Medici, Machiavelli, Castiglione, Ariosto, and Tasso. 50B. Enlightenment to Postmodernism. Comparative study of major literary texts and their adaptations into different forms of public spectacle, including theater, opera, and film. Works by Goldoni, Gozzi, Mascagni, Verga, Puccini, Pirandello, Calvino, Ortese, Zavattini, de Sica, and Taviani Brothers. Emphasis on development of ideas of spectacle.

77. Encounters between Christianity, Islam, and New Worlds in Age of Discovery. (5) Lecture, four hours; discussion, one hour. Examination of cultural, religious, and racial differences in early modern world of Italy, America, Africa, and Ottoman Empire. Materials include films, artworks, Dante’s Divine Comedy, Qur’an, Arab chronicles of Crusades, travel logs and letters of Christopher Columbus, Italian Renaissance epic poems, and anticolonial polemics. P/NP or letter grading.

89. Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to lower-division lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

89HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to lower-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

99. Student Research Program. (1 to 2) Tutorial (supervised research or other scholarly work), three hours per week per unit. Entry-level research for lower-division students under guidance of faculty mentor. Students must be in good academic standing and enrolled in minimum of 12 units (excluding this course). Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP grading.

Upper-Division Courses

100. Composition and Style. (4) Lecture, three hours. Enforced requisite: course 6. Taught in Italian. Development of writing techniques and proficiency in composition and style, with emphasis on editing for grammar and style, P/NP or letter grading.

102A-102B-102C. Italian Cultural Experience in English. (4-4-4) Lecture, three hours. Study of cultural development of Italy. P/NP or letter grading. 102A. Roots of Western civilization: social, political, and artistic achievements of communal society; Marco Polo, Dante, Boccaccio, Giotto, rise of Italian merchant class. 102B. Renaissance discovery of human genius; crucial period between Machiavelli and Galileo, leading Italy and Europe to scientific revolution. 102C. Birth of Italian nation from wars of independence to foundation of modern republic, delineated through films and cinema in historical context.

103A. Introduction to Classic Italian Literary and Cultural Studies. (4) Lecture, three hours. Enforced requisite: course 100. Taught in Italian. Selected classic works of Italian literature, theater, art, and culture from medieval era to Renaissance and baroque. Emphasis on critical methods and skills for analyzing and interpreting wide range of Italian texts and cultural formations in their historical context and in comparison to contemporary and transnational views. Representative authors may include Saint Francis of Assisi, Dante, Petrarch, Boccaccio, Saint Catherine of Siena,
110. Dante in English. (4) Lecture, three hours. Close study of Dante’s works in English translation, particularly of his masterpiece, *Divine Comedy*, the archetypal medieval journey through the afterworld. P/NP or letter grading.

113. Dante’s *La Divina Commedia*. (4) Lecture, three hours. Enforced prerequisite: course 100. Taught in Italian. Study of medieval philosophy, religion, and politics in *La Divina Commedia*, greatest literary achievement of the age. P/NP or letter grading.

114B. Middle Ages: Medieval Humor, Morality, and Gossip. (4) Lecture, three hours. Novelty of Boccaccio’s witty and comic masterpiece, *Decameron*, analyzed within context of moral and social codes of culture of time. P/NP or letter grading.

116A-116B. Italian Renaissance. (4-3) Lecture, three hours. P/NP or letter grading. 116A. Renewal of Art and Thought. Study of Quattrocento and its representatives in arts and humanistic thought (i.e., Mantegna, Botticelli, Piccio, Valla, and Ficino). 116B. Power and Imagination in Renaissance. Study of artistic world of Leonardo, Raphael, Michelangelo, Titian, and literary masterpieces of Machiavelli, Castiglione, Ariosto, Tasso, and others, molded by powerful political forces, such as Roman Papacy and Medici, Gonzaga, and D’Este courts.

120. Modern and Contemporary Literature. (4) Lecture, three hours. Analysis of novels, short fiction, poetry, and drama in connection with modern and contemporary thought, politics, and culture. Authors may include D’Annunzio, Aleramo, Pirandello, Ungaretti, D’Este courts. (4) Lecture, three hours. Comparative study of specific literary works and their adaptation into film and of different techniques in two media and forms of expression. Texts include literary works, plays, journals, works on literary and film theory, P/NP or letter grading.

122. Italian Theater. (4) Lecture, three hours. Study of works for stage from Renaissance to present, including examples of opera and questions pertaining to particularity of his masterpiece, *Divine Comedy*, the archetypal medieval journey through the afterworld. P/NP or letter grading.

125. Italian Opera. (4) Lecture, three hours. Requirements: course 6. Taught in Italian. Introduction to traditional Italian opera as means of appreciating culture of Italy, art form of opera, and study of Italian lan-

guage at advanced level through reading of libretti. Six masterworks of Italian opera tradition—II Barbiere di Siviglia, La Bohème, Pagliacci, Otello, Tosca, and La Traviata—offer culturally authentic contexts to learn about operas, their characters, plots, settings, and themes. Exploration of various historical, biographical, and cultural issues raised in each opera. P/NP or letter grading.


140. Italian Novella from Boccaccio to Basile in Translation. (4) Lecture, three hours. Analysis of development of Italian novella in its structure, historical context, and folk material. Special emphasis on how Italian novella influenced other European literatures. P/NP or letter grading.

150. Modern Fiction in Translation. (4) Lecture, three hours. Select issues in 20th-century thought traced in writers of international fame, with focus on concepts and styles of several prose works such as Umberto Eco’s *The Name of the Rose*, Pasolini’s *The Ragazzi*, Pirandello’s *The Late Mattia Pascal*, and Calvino’s *The Cosmicomics*. P/NP or letter grading.

152. Italy between Europe and Africa. (4) Lecture, three hours. Knowledge of Italian or background in Italian studies not required. Analysis and critical discussion of works by Italian, northern European, and African authors (including travelers and migrants) who from 15th to 20th century present have seen or experienced Italian peninsula and islands as bridge between Europe and Africa, or mix of both. Readings include works by northern European and African authors about Italy, and Italian authors about Africa and southern Italy. P/NP or letter grading.

M158. Women, Gender, and Sexuality in Italian Culture. (4) (Same as Gender Studies M158.) Lecture, three hours. Recent research on gender roles, images of femininity and masculinity, patriarchy, myths of Madonnina and Latin lover, condition of women in Italian society through history, politics, literature, film, and other media. Italian majors required to read texts in Italian. P/NP or letter grading.

189. Advanced Honors Seminars. (1 Seminar, three hours. Limited to 20 students. Designed as adjunct to undergraduate lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

189HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to upper-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

191. Variable Topics Research Seminars: Italian Studies. (4) Seminar, three hours. Research seminar with focus on themes and issues outside uniquely Italian literature. May be taken twice for credit. P/NP or letter grading.

195. Community or Corporate Internships in Italian. (4) Tutorial, three hours. Internship in supervised setting in community agency or business. Students meet on regular basis with instructor and provide periodic reports of their experiences. May be repeated for credit. P/NP or letter grading.

198. Honors Research in Italian. (4) Tutorial, one hour. Limited to juniors/seniors. Development and completion of an individually designed project under the supervision of faculty member. May be repeated for credit. Individual contract required. Letter grading.

199A. Directed Research in Italian. (2-4 Tutorial, to be arranged. Limited to juniors/seniors. Supervised individual research or investigation under guidance of faculty mentor. Culminating paper or project required. May be repeated for credit. Individual contract required. P/NP or letter grading.

199B. Directed Capstone Research in Italian and Italian and Special Fields. (4 Tutorial, to be arranged. Requires: courses 100 and at least four required courses for the major. Limited to senior Italian and Italian and Special Fields majors. Supervised individual research under guidance of faculty mentor. Capstone tutorial in which interdisciplinary paper (20-23 pages) is to be written. P/NP or letter grading that requires students to synthesize their knowledge of Italian or Italian and one special field of study. Individual contract required. Letter grading.

Graduate Courses


210. Studies in Early Italian Literature. (4) Lecture, three hours. Topics include origins of Italian language and study of early texts, such as St. Francis of Assisi or Jacopone de Todi.

214A-214F. Studies in Medieval Literature. (4 each) Lecture, three hours. S/U or letter grading. 214A. La Divina Commedia. 214B. Dante’s Other Works. 214C. Petrarcha’s Canzoniere. 214D. Boccaccio’s Decameron. 214E. Boccaccio’s Other Works. 214F. Variable Topics. Variable-content seminar on themes and issues of medieval literature, with coverage of authors such as St. Francis of Assisi or Jacopone de Todi.

215A-215B. Studies in 15th-Century Literature. (4-4 Lecture, three hours. S/U or letter grading. 215A. Variable Topics. Variable-content seminar on themes and issues of 15th-century literature, with coverage of authors such as Pulci or Poliziano. 215B. Age of Lorenzo de’ Medici and Poliziano.

216A-216E. Studies in the Renaissance. (4 each) Lecture, three hours. S/U or letter grading. 216A. Medieval and Renaissance Political Thought. 216B. Ariosto and Renaissance Epic. 216C. Tasso. 216D. Renaissance Theater. 216E. Variable Topics. Variable-content seminar on themes and issues of Renaissance literature, with coverage of authors such as Vasari, Leonardo, or Benvenuto.


218A-218D. Studies in 18th-Century Literature. (4 each) Lecture, three hours. S/U or letter grading. 218A. Vico. 218B. Affieri. 218C. Goldoni. 218D. Variable Topics. Variable-content seminar on themes and issues of 18th-century literature, with coverage of authors such as Vico, Cattaui, and Carlo Goldoni.


221A-221E. Studies in 20th-Century Literature. (4 each) Lecture, three hours. S/U or letter grading. 221A-221D. Variable Topics. Variable-content seminar on themes and issues of 20th-century literature, with coverage of authors such as Carducci, Tommaso, and Pasolini.

221F. Directed Research in Italian. (2-4 Tutorial, to be arranged. Limited to juniors/seniors. Supervised individual research or investigation under guidance of faculty mentor. Culminating paper or project required. May be repeated for credit. Individual contract required. P/NP or letter grading.

221G. Directed Capstone Research in Italian and Italian and Special Fields. (4 Tutorial, to be arranged. Requires: courses 100 and at least four required courses for the major. Limited to senior Italian and Italian and Special Fields majors. Supervised individual research under guidance of faculty mentor. Capstone tutorial in which interdisciplinary paper (20-23 pages) is to be written. P/NP or letter grading that requires students to synthesize their knowledge of Italian or Italian and one special field of study. Individual contract required. Letter grading.

221H. Directed Research in Italian. (2-4 Tutorial, to be arranged. Limited to juniors/seniors. Supervised individual research or investigation under guidance of faculty mentor. Culminating paper or project required. May be repeated for credit. Individual contract required. P/NP or letter grading.

221I. Directed Capstone Research in Italian and Italian and Special Fields. (4 Tutorial, to be arranged. Requires: courses 100 and at least four required courses for the major. Limited to senior Italian and Italian and Special Fields majors. Supervised individual research under guidance of faculty mentor. Capstone tutorial in which interdisciplinary paper (20-23 pages) is to be written. P/NP or letter grading that requires students to synthesize their knowledge of Italian or Italian and one special field of study. Individual contract required. Letter grading.
of legacy of two major figures in Italian poetry from 1531-1533. Thorou...

220B. Women in Italian Culture. (4) Lecture, three hours. Desi...

260B. Women in Italian Culture. (4) Lecture, three hours. Designed for graduate students. Conditions of women within Italian society, with concentration on specific works produced by women and/or repre...

20th-Century Narrative to World War II. In-depth examination of some major works that have made contemporary Italian literature famous throughout the world, with special emphasis on study of formalistic modes adopted by the neo-avant-garde.

221E. Pirandello and Contemporary Theater. Thorough reading of theatrical texts, accompanied by analysis of how the plays have been realized on stage by important directors such as Streher, Ronconi, and the playwrights themselves. Emphasis on ritualistic implications of the theatrical performance.

222A-222B. Comparative Romance Historical Grammar. (4-4) Lecture, three hours. Each course may be taken independently for credit. S/U or letter grading.

222A. Phonology. Principal sound changes from late Latin to main Romance dialects. 222B. Morphology and Syntax. Prime morpho-syntactic changes occurring between late Latin and main Romance dialec...

223. Structures of Modern Italian. (4) Lecture, three hours. Descriptive analysis of basic features of standard Italian from synchronic, typological perspective. Topi...

224. Italo-Romance Dialectology. (4) Lecture, three hours. Differentiation of late spoken Latin into myriad varieties spoken in Italy. Attention to discrete language types (e.g., Sardinian, Ladino, Friulian, and Franco-Provençal). Considers the present-day sociolinguistic pressures. S/U or letter grading.

225. Cultural History of Italian Language. (4) Lecture, three hours. Historical survey of development of Italian language from medieval times to unification of country in 1861. Questione della lingua, general acceptance of Florentine speech, and its evolution into national language. S/U or letter grading.

230A-230B. Folk Tradition in Italian Literature. (4-4) Lecture, two hours. S/U or letter grading. M241. Seminar: Political Geography of Italy. (4) (Same as Geography M292.) Seminar, three hours; reading period, two hours. Themes in political geography with particular emphasis on Italy. May be repeated for credit. S/U or letter grading.


253A-253B-253C. Seminars: Chivalric Poetry in Italy. (4-4-4) Seminar, three hours. Relationship between genre and its French medieval sources, with study of its evolution in Italy through Pulci, Boiardo, Ariosto, and Tasso. S/U or letter grading.


255A-255B. Seminars: Baroque. (4-4) Seminar, three hours. S/U or letter grading.

256A-256B. Seminars: 18th Century. (4-4) Seminar, three hours. S/U or letter grading.

257A-257B. Seminars: Romanticism. (4-4) Seminar, three hours. S/U or letter grading.

258A-258B. Seminars: Contemporary Italian Literature. (4-4) Seminar, three hours. S/U or letter grading.

260A. Alternative Perspectives in Italian Culture: Studies of Folk Tradition in Italian Literature. (4) Lecture, three hours. Open to undergraduate students with consent of instructor. Conspicuous diversity animating Italian society articulated through class, gender, and ethnic/linguistic groups to be studied across range of texts, some selected from literary canon, but others purely oral (tales, songs, proverbs, curses and curses, secular and ritual drama). S/U or letter grading.

260B. Women in Italian Culture. (4) Lecture, three hours. Designed for graduate students. Conditions of women within Italian society, with concentration on specific works produced by women and/or representing women's conditions in either medieval/Renaissance or contemporary time. S/U or letter grading.

260C. Studies in Italian Cinema. (4) Lecture, three hours. Designed for the Italian cinema compared with other European countries' and Hollywood's cinema, with focus on its development from its origins through Fascist times to neorealism, its legacy, different genres, and contemporary. S/U or letter grading.

298. Variable Topics in Italian Studies. (4) Lecture, three hours; discussion, one hour. Designed for graduate students. Seminar focusing on themes and issues outside the usually Italian literary topics covered in regular departmental graduate courses.


375. Teaching Apprentice Practicum. (1 to 4) Seminar, to be arranged. Preparation: apprentice personnel employment as teaching assistant, associate, or fellow. Teaching apprentice under active guidance and supervision of regular faculty member responsible for curriculum and instruction at UCLA. May be repeated for credit. S/U grading.

495A-495B-495C. Teaching Italian at College Level. (2 to 4 each) Seminar, to be arranged. S/U grading.

495A. Study methods in preparation for teaching Italian at college level, with emphasis on teaching proficiency-oriented instruction. May not be applied toward MA course requirements. 495B. Continuation of course 495A; study of contemporary issues in Italian language pedagogy. 495C. Effective uses of technology in foreign language classroom. Project-based seminar in which students develop materials for classroom instruction as well as an electronic teaching portfolio.

501. Cooperative Program. (2 to 8) Preparation: consent of UCLA graduate adviser and graduate dean, and host campus instructor, department chair, and graduate dean. Used to record enrollment of UCLA students in courses taken under cooperative arrangements with USC. S/U grading.

596. Directed Individual Studies. (2 to 12) May be repeated twice for credit. S/U grading.

597. Preparation for MA Comprehensive Examination or PhD Qualifying Examinations. (2 to 12) S/U grading.

599. PhD Research and Writing. (2 to 12) May be repeated. S/U grading.

580. PhD Research and Writing. (2 to 12) May be repeated. S/U grading.

Labor Studies

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Los Angeles, CA 90095-1478

Labor Studies
310-206-0812
Program e-mail
F. Tobias Higbie, PhD, Chair

Faculty Committee
Maylel S. Blackwell, PhD (Chicana and Chicano Studies, Gender Studies)
Jennifer J. Chun, PhD (Asian American Studies)
Christopher L. Erickson, PhD (Management)
F. Tobias Higbie, PhD (History)
Kelly A. Lytie Hernández, PhD (History)

Labor Studies BA

Capstone Major

The Labor Studies major offers an interdisciplinary approach to the study of inequality at work and in the community. The program prepares undergraduates for a wide range of careers including but not limited to labor relations; human resource management; human rights, labor and community organizing; business; law; domestic and international government work; nonprofit management; organizational leadership; economic forecasting; education; social work; and social welfare. To be admitted to

Scope and Objectives

Labor Studies is an interdisciplinary field of scholarship that encompasses historical and contemporary study of the sociocultural economic, legal policy, and political forces that shape the lives of working people, labor markets, employment practices, and social movements seeking greater economic equity for workers and their communities. Labor studies also embraces the insights of critical race, ethnic, working class, and gender studies in order to understand work and social movements as a multidimensional site of study. Labor studies students gain a strong background in social scientific analysis and applied research, and have many opportunities for civic engagement. The program is intended for students who wish to gain an in-depth understanding of the broad array of issues related to labor, work, and social movements. Students are strongly encouraged to meet with a faculty and student coordinator, to create a pathway to graduation and to create a curriculum guide that consists of either a coherent integration of courses according to a thematic or topical investigation or, alternatively, a comprehensive survey of the main issues involved in the study of labor and social change.

Graduates with a bachelor’s degree in Labor Studies are prepared for careers in nonprofit advocacy, public service, and labor and social movements broadly defined. With ample opportunities to develop and apply a variety of research modalities through coursework, students are also prepared to succeed in graduate and professional school programs in a wide variety of fields.

Undergraduate Study

Labor Studies is interdisciplinary by its nature, drawing on a variety of fields for instructors and researchers. Labor Studies majors and minors become part of an existing interdisciplinary research community with strong ties to researchers and teachers in the social sciences and professional schools. The Labor Studies major is a designated capstone major. Undergraduate students fulfill a research-intensive capstone course or service learning experience in their senior year.

Labor Studies BA

Capstone Major

The Labor Studies major offers an interdisciplinary approach to the study of inequality at work and in the community. The program prepares undergraduates for a wide range of careers including but not limited to labor relations; human resource management; human rights, labor and community organizing; business; law; domestic and international government work; nonprofit management; organizational leadership; economic forecasting; education; social work; and social welfare. To be admitted to
the Labor Studies major, students must have a minimum grade point average of 2.5 and must have completed all non-language Labor Studies preparation for the major courses. Students must complete an application process and file a petition to be admitted for the major at the program’s office.

**Learning Outcomes**

The Labor Studies major has the following learning outcomes:

- Demonstrated familiarity and competence in a range of interdisciplinary methodologies and approaches
- Demonstrated knowledge of the field of labor studies acquired through coursework
- Demonstrated familiarity with dynamics of social movements through study and/or experience
- Demonstrated ability to conceive and execute an original research project, either individually or in a research group
- Demonstrated ability to communicate research findings to academic and nonacademic audiences

**Admission**

To be admitted to the Labor Studies major, students must have a minimum grade point average of 2.5 and must have completed all non-language Labor Studies preparation for the major courses. Students must complete an application process and file a petition to be admitted for the major at the program’s office.

**Preparation for the Major**

Required: Labor Studies 10 and two lower-division courses selected from African American Studies 1, M5, Asian American Studies 10, 20, 40, 50, Chicana and Chicano Studies 10B, Gender Studies 10, Geography 4, History 28, 88, 12A, 12B, 12C, Honors Collegium 82, Political Science 60, Public Policy 10A, 10B, Sociology M5, S1, Spanish 44; or Labor Studies M1A, M1B, M1CW.

Students may petition, prior to enrollment in the course, apply other topical lower-division courses with substantial labor-related content.

**Transfer Students**

Transfer applicants to the Labor Studies major with 90 or more units must complete as many of the following introductory courses as possible prior to admission to UCLA: one interdisciplinary labor history or one social structure and contemporary conditions course related to labor and/or social movements.

Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

**The Major**

**Required Core Course (4 units):** Labor Studies 101.


**Capstone Research and/or Community-Engaged/Internship Experience (8 units):** During their senior year, students must complete research-intensive capstone courses, community-engaged/internship experiences, or a combination of both, selected from Labor Studies 191A, 194A, 194B, 195A, 195B, an approved internship through the Center for Community Learning. Each major course must be taken for a letter grade, and students must have an overall grade-point average of 2.0 or better.

**Labor Studies Minor**

The Labor Studies minor augments study in a traditional field. Students are required to complete both a departmental major and this minor. The faculty adviser certifies completion of the program.

To enter the minor, students must be in good academic standing, have a 2.5 grade-point average or better, have completed 45 units, and file a petition and meet with the faculty adviser and minor coordinator in 9244 Bunche Hall, 310-206-0812. Students are encouraged to meet early with the academic adviser to declare the minor and design a coherent program of coursework.

**Required Core Course (4 units):** Labor Studies 101.


A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor. Each minor course must be taken for a letter grade, and students must have a minimum grade of C (2.0) in each and an overall grade-point average of 2.0 or better in the minor. Successful completion of the minor is indicated on the transcript and diploma.

**Labor Studies Lower-Division Courses**

M1A-M1B-M1CW. Work, Labor, and Social Justice in U.S. (Formerly numbered Labor and Workplace Studies Courses M1A-M1B-M1CW) (Same as Clusters M24A-M24B-M24CW) Course M1A is an enforced requisite to M1B, which is enforced requisite to M1CW. Limited to first-year freshmen. Letter grading. M1A-M1B. Lecture; three hours; discussion; two hours. Exploration of ways in which work has been transformed over last century, impact of this transformation on working people, and role of labor movement as force for social justice. M1CW. Special Topics. Seminar, three hours. Enforced requisite: course M1B. Topics include labor law/history, gender, race, and workplace. Satisfies Writing II requirement.

10. Introduction to Labor and Workplace Studies. (Formerly numbered Labor and Workplace Studies 12.) Lecture; three hours; discussion; one hour. Assumptions about work, including why some work is favored, whether those with good jobs really are better people than those without, and how this understanding of work and value came to be common sensesh. Unpacking of these and other assumptions about work, value, and power, with focus on low-wage workers, their communities, and their place in contemporary society. P/NP or letter grading.

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

89. Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to lower-division lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

98HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to lower-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

97. Introduction to Labor Studies Research. (1) Seminar, three hours. Designed for freshmen/sophomores. Study of current topics and particular research methods in labor studies through readings and other assignments at introductory level. Consult Schedule of Classes for topics to be offered in specific term. May be repeated for credit with topic change. P/NP or letter grading.

99. Student Research Program. (1 to 2) Tutorial (supervised research or other scholarly work), three hours per week per unit. Entry-level research for lower-division students under guidance of faculty mentor. Students must be in good academic standing and enrolled in minimum of 12 units (excluding this course). Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP grading.

**Upper-Division Courses**

101. Introduction to Labor and Social Movements in Los Angeles. (4) Lecture; three hours; discussion; one hour. Students gain exposure to concepts of social justice, social movements, and workers and labor issues in context of global city of Los Angeles. In-depth examination of experience of workers and role of labor movement in Los Angeles, both historically and currently. Topics include changing organization of work in U.S. and reconfiguration of employment relationships; response of labor movement, his-
M114. African American Political Thought. (4) (Formerly numbered Labor and Workplace Studies M114C.) (Same as African American Studies M114C and Political Science M1180A.) Lecture, three or four hours; discussion, when scheduled. In-depth introduction to African American political thought, with focus on major ideological trends and political philosophies, including grassroots, mass movement characters, and political systems and political interpretation and political action by and among African Americans. Debates and conflicts in black political thought, historical context of African American social movements, and relationship between black political thought and major trends in Western thought. P/NP or letter grading.

M116. Asian American Social Movements. (4) (Formerly numbered Labor and Workplace Studies M116.) (Same as Asian American Studies M116.) Lecture, three hours. Designed for juniors/seniors. Examination of several dimensions of Asian American social movements, including grassroots, mass movement characters, political and social vision, and social and political reification. How movements and participants linked struggle for change with personal transformation and growth. P/NP or letter grading.

M117. Negotiation. (4) (Formerly numbered Labor and Workplace Studies M117.) (Same as Communication M117.) Lecture, three or four hours. Art and science of negotiation in securing agreements between independent parties. Theory and practice that underlies successful negotiation. Experiential course in which students pursue a range of negotiation skills, including identifying one's own and others' communication style, identifying and incorporating components of successful negotiation, and resolving conflict between parties. Letter grading.

M119. Asian American and Pacific Islander Labor Issues. (4) (Formerly numbered Labor and Workplace Studies M119.) (Same as Asian American Studies M119.) Lecture, three hours. Examination of historical and contemporary labor issues in Asian and Pacific Islander American communities, with emphasis on key role that Asian and Pacific Islander American students can play in supporting labor struggles of low-income immigrants and workers. P/NP or letter grading.

M121. Issues in Latin/o/Latino Poverty: Mexican and Central American Voices from Los Angeles. (4) (Formerly numbered Labor and Workplace Studies M121.) (Same as Chicana and Chicano Studies M121 and Urban Planning M140.) Lecture, four hours. Examination of key issues (work, housing, and neighborhoods) in urban poverty, with particular focus on Mexican and Central American immigrant populations in Los Angeles. Exploration of major theoretical models that explain urban poverty and application of them in comparative context while exploring differences between Mexican and Central American immigrants. Social conditions and forces that help us understand lives of poor people in comparative context while looking at differences between two major Latin/o-origin populations. Lab, field placement, and research on new forms of urban poverty in contemporary American society. Letter grading.

M122. Planning Issues in Latina/o/Latina Communities: Preserving and Strengthening Community Assets in Mexican and Salvadoran Los Angeles. (4) (Formerly numbered Labor and Workplace Studies M122.) (Same as Chicana and Chicano Studies M122 and Urban Planning M171.) Lecture, four hours. How community and economic development interact; analysis of assets in community development, and unique synergies and pitfalls that enable or disable communities from developing to their potential. How to strengthen and how to preserve community resources in Pico-Union neighborhood in Los Angeles. Research entails historical analysis, reviews, interviews, electronic asset mapping, web-based data processing and analysis, oral history, news reports, and cyber-based research. Letter grading.


M125. U.S./Mexican Relations. (4) (Formerly numbered Labor and Workplace Studies M125.) (Same as Chicana and Chicano Studies M125.) Lecture, four hours. Examination of complex dynamics in relationship between U.S. and Mexico. Linkages between economy approach to study of asymmetrical integration between advanced industrial economies and developing countries. P/NP or letter grading.

126. Farm Worker Transnational Struggle. (4) (Formerly numbered Labor and Workplace Studies M126.) Lecture, three hours; discussion, one hour. Focus on historical and contemporary issues farm workers face in restructured economy, and class, racial, and gender dynamics that shape their work experiences and economic and political opportunities in society large. Study also covers gender, race, and class conflicts in workplace and during collective struggles for equality in cross-border arenas, including political and cultural legacy of farm workers' struggle in U.S. and its long-lasting impact on labor movement and immigrant workers' and social justice movements. Special focus on assessing the legacy and impact of UFW-organized labor and civil rights movements that have in promoting multiracial and multicultural campaigns for workplace and economic justice from cross-border perspective. Students gain understanding of practical understanding of farm workers' experiences across U.S.-Mexico border, and of legacy of United Farm Workers and other farm worker unions. P/NP or letter grading.

M127. Farmworker Movements, Social Justice, and United Farm Workers Legacy. (4) (Formerly numbered Labor and Workplace Studies M127.) (Same as Chicana and Chicano Studies M127.) Lecture, four hours. Discussion of early and contemporary labor and civil rights movements, including its multiracial origins and its influence on fight for equality of working women. Specific focus on organizing of United Farm Workers and Farm Laborers Organizing Committee, and their relationship to AFL-CIO, other unions, and their influence on Chicano Movement. Letter grading.

M128. Race, Gender, and U.S. Labor. (4) (Formerly numbered Labor and Workplace Studies M128.) (Same as Chicana and Chicano Studies M128.) Lecture, four hours. Designed for seniors/juniors. Introduction to history and current public policy issues in U.S. and North America. Discussion of race, class, and gender issues raised within movement, and various strategies for social change and economic equity pursued through organized labor and other means. Letter grading.

M134SL. Engaging Immigrants and Their Families. (5) (Formerly numbered Labor and Workplace Studies M134SL.) (Same as Chicana and Chicano Studies M134SL) Lecture, two hours; discussion, two hours; field placement, two hours. Survey and exploration of immigrant landscape in Los Angeles—truly global city acting in part to buffer, settle, and incorporate new immigrant populations. Lab, field placement, and research on new immigrant populations. Letter grading.

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M134SL. Engaging Immigrants and Their Families. (5) (Formerly numbered Labor and Workplace Studies M134SL.) (Same as Chicana and Chicano Studies M134SL) Lecture, two hours; discussion, two hours; field placement, two hours. Survey and exploration of immigrant landscape in Los Angeles—truly global city acting in part to buffer, settle, and incorporate new immigrant populations. Lab, field placement, and research on new immigrant populations. Letter grading.

M136. Working Families and Educational Inequalities in Urban Schools. (4) (Formerly numbered Labor and Workplace Studies M136.) Seminar, three hours; fieldwork, five hours. Exploration of complex relationship between working-class and poor communities and inequalities in American urban schools. Interdisciplinary frameworks that address issues of race, ethnicity, and immigration, schools viewed as sites where inequalities are produced and resisted. Review of history of exclusionary treatment and divergent conceptual frames that educational researchers have used to understand notion of inequality, access to quality public education, and how race, ethnicity, and class affect school experiences for working-class and poor communities. Look inside schools for service learning opportunity to examine systems, structures, and everyday practices that sustain and reproduce inequality and policies that intend to remedy educational inequalities in urban schools. Students are given opportunity to investigate issues of working-class families and inequalities as they relate to students' own communities and experiences. P/NP or letter grading.

M138. Women's Work: Work, Social Justice, and Arts. (4) (Formerly numbered Labor and Workplace Studies M138.) Lecture, three hours; discussion, one hour. Examination of working women in U.S. history from 19th-century to present to managerial initiatives; ways women have achieved gains. Students gain understanding of how some women have utilized their work experience, and to improve working conditions for themselves and their working-class sisters. P/NP or letter grading.

M144. Women's Movement in Latin America. (4) (Formerly numbered Labor and Workplace Studies M144.) (Same as Chicana and Chicano Studies M144 and Gender Studies M144.) Lecture, four hours. Course on women's movements and feminisms in Latin America and Caribbean to examine diverse social movements and locations from which women have launched political and gender struggles. Discussion of forms of feminism and women's consciousness that have emerged out of indigenous rights movements, environmental struggles, labor movements, Christian-based communities, peasant and rural organizing, and multi-racial movements that have fought against race, sexuality, feminism, and human rights. Through comparative study of women's movements in diversity of political systems as well as national and transnational arenas, students gain understanding of historical contexts and political conditions that give rise to women's resistance, as well as major debates in field of study. P/NP or letter grading.

M149. Media: Gender, Race, Class, and Sexuality. (4) (Formerly numbered Labor and Workplace Studies M149.) (Same as Communication M149 and Gender Studies M149.) Lecture, four hours; activity, one hour. Limited to junior/senior Communication and Gender Studies majors and by permission of the instructor. Examination of manner in which media culture produces people to perceive various dominant and dominated and/or colonized groups of people. Ways in which women, gay, lesbian, bisexual, transgendered, racial, and ethnic marginalized peoples, class relations, and other subaltern or subordinated groups are presented and often misrepresented in media. Introduction to and employment of practical applications of communications and feminist theories for understanding ideological nature of stereotyping and representations of people through media, spectacles, imagery, class discussions, and readings. Introduction to theory and practice of cultural studies. Letter grading.

152. Work, Social Justice, and Arts. (4) (Formerly numbered Labor and Workplace Studies M152.) Lecture, three hours; field visit. Analysis of how art (in cartoons, poster art, murals, photography, film, visual art, theater, performance, dance, and music) has been influential in popular movements for economic, racial, social justice by analyzing the role of American labor movement, and other social movements such as civil rights, women's rights, immigrant rights, and Black Lives Matter. Reflection on different discourses of art-making that arise from specific historical struggles (1920s, Great Depression of 1930s, 1960s, to present). Examination of what Los Angeles has to offer in terms of art, labor, and social justice movements. Focus on labor, social justice, or arts organization in L.A. that is focused
on themes of work, labor, and art. Exploration of spectrums of art forms (dance, music, sculpture, theater, visual art, film, museum curation) that have been produced and reproduced as reflections of work, labor, and social justice struggles in U.S. P/NP or letter grading.

153. Stories of Struggle: Work, Class, and Narrative in Contemporary America. (4) (formerly numbered Labor and Workplace Studies 153.) Lecture, three hours. Overview of contemporary working narratives. Investigation of how working-class Americans from diverse backgrounds have narrated their struggles with poverty, education, work, parenthood, bodily suffering, and what readers learn from these struggles as students, writers, and activists. Emphasis on 21st-century narratives. Analysis of variety of genres, including poetry, lyrics, short stories, journalism and reportage, novels, memoir, and autobiography, for how they portray working class people and what they offer working class movement culture. Consideration of class as intersectional category of experience along with race, gender, and sexuality. Students develop narratives about their work, and contribute to body of working class literature through memoir, fiction, poetry, or journalism. P/NP or letter grading.

M165. Sociology of Race and Labor. (4) (formerly numbered Labor and Workplace Studies M165.) (Same as African American Studies M165 and Sociology M165.) Lecture, three hours; discussion, one hour. Labor and Employment. Examination of labor market dynamics and its impact on work, and changing conditions of employment, including the work of race/ethnicity, employment, and U.S. labor movement. Analysis of underlying racial discourses in workplace and how they evolved historically. Consideration of circumstances under which workers and unions have excluded people of color from jobs and unions, as well as circumstances under which workers and unions have organized people of color into union. Examination of historical and contemporary issues, including race/ethnicity, employment, and union solidarity. P/NP or letter grading.

M166A. Immigrant Rights, Labor, and Higher Education. (4) (formerly numbered Labor and Workplace Studies M166A.) (Same as Asian American Studies M166A and Chicana and Chicano Studies M166A.) Lecture, three hours; discussion, one hour. New immigrant rights movement, with particular attention to labor and higher education (Overview of history of immigrant rights movement and examination of development of coalition efforts between labor movement and immigrant rights movement nationally and locally. Special focus on immigrant student organizing and education, challenges facing undocumented immigrant students, and legislative and policy issues that have emerged. Students conduct oral histories, family histories, and archival research. Consideration of immigration and rights, write poetry and spoken word about immigrant experience, and work to collectively develop student publication on immigrant students in higher education. P/NP or letter grading.

M166B. Research on Immigration Rights, Labor, and Higher Education. (4) (formerly numbered Labor and Workplace Studies M166B.) (Same as Asian American Studies M166B and Chicana and Chicano Studies M166B.) Seminar, two hours. Requisite: course M166A. Expansion of research conducted by students in course M166A involving oral histories, research and/or higher education, and evaluation of legislation and legal issues impacting undocumented students. Letter grading.

M166C. Research on Immigrant Students and Higher Education. (4) (formerly numbered Labor and Workplace Studies M166C.) (Same as Asian American Studies M166C and Chicana and Chicano Studies M166C.) Seminar, three hours. Enforced requisites: courses M166A, M166B. Expansion of research conducted by students in courses M166A and M166B involving oral histories, research on immigration/labor/ higher education, and evaluation of legislation and legal issues impacting undocumented students. Designed as a class project, where students work on showcasing all material collected throughout year. Letter grading.

M167. Worker Center Movement: Next Wave Organizing for Justice for Immigrant Workers. (4) (formerly numbered Labor and Workplace Studies M167.) (Same as African American Studies M167, Asian American Studies M163, and Chicana and Chicano Studies M163.) Development of theoretical and practical understanding of worker center movement, with focus on historical factors that have led to emergence and growth of worker centers. Role of workers organizing multiracial campaigns for workplace and economic justice. Transnational cross-border solidarity issues and rights of undocumented workers. P/NP or letter grading.

168. Law and Politics of Immigration: Migrants and Inevitable Evolution of Collective and Individual Rights. (4) (formerly numbered Labor and Workplace Studies 168.) Lecture, three hours. With immigration and rights of migrants at center of current political and legal debates throughout world, study offers critical introduction to inevitable evolution of law and policy resulting from—a dramatic reaction to—movement of immigrants. Endows students with wide array of analytical tools with which to engage current political debates about immigration. Using historical and modern texts, while drawing on popular culture, and storytelling, study encourages discussion, debate, and analysis about immigrants’ role in development of rights and modern political debates about immigration. Exploration of inclusion, exclusion, integration, and multiculturalism. Students describe shortcomings of status-quo policies while also imaging and prescribing arguments about where law can and should be changing.

M170. Improving Worker Health: Social Movements, Policy Debates, and Public Health. (4) (formerly numbered Labor and Workplace Studies M170.) (Same as Community Health Sciences CM170.) Lecture, three hours. Exploration of intersection between work, health, and environment, analysis of social causes of health disparities, investigation of historical trends and social movements, interpretation of current policy debates, and development of innovative interventions. P/NP or letter grading.

M171. Labor and Economic Development. (4) (formerly numbered Labor and Workplace Studies M171.) (Same as Urban Planning CM172.) Lecture, three hours. Exploration of economic development and identification of ways that labor and labor unions directly and indirectly influence and shape economic development in the workplace, labor plays, and could play, in promoting and supporting economic development for all. Letter grading.

M173. Nonviolence and Social Movements. (4) (formerly numbered Labor and Workplace Studies M173.) (Same as African American Studies M173 and Chicana and Chicano Studies M173.) Lecture, three hours; discussion, one hour. Overview of nonviolence and its impact on social movements both historically and in its present context in contemporary society, featuring lectures, conversations, films, readings, and guest speakers. Exploration of some historic contributions of civil rights struggles and role of nonviolent action throughout recent U.S. history. Examination of particular lessons of nonviolent movements as they impact social change organizing in Los Angeles. P/NP or letter grading.

174. Labor and Employment Law. (4) (formerly numbered Labor and Workplace Studies 174.) Lecture, three hours. Using combination of cases, statutes, news articles, films, and oral history, introduction to U.S. labor law and recent developments and trends; and basic structure of laws, regulations, and cases that govern organizing to improve workplace conditions. Study covers primary federal acts and court cases that govern strikes, picketing, labor plays, and union elections. Examination of challenges to organizing labor from inside and outside labor movement, including right-to-work legislation; dismantling of public sector unions; and anti-immigrant sentiment in labor movement. Emphasis on case studies. Topics include new trends in labor organizing. Offers mix of guest speakers, oral history, case excepts, scholarly articles, news articles and blogs, videos, small-group work, and community engagement. P/NP or letter grading.

M175. Agitational Communication. (4) (formerly numbered Labor and Workplace Studies M175.) (Same as Communication M175.) Lecture, four hours; discussion, one hour. Emphasis on history of agitation; agitation as force for change in existing institutions and policies in democratic society. Intensive study of selected agitational movements and techniques and content of their communications. Letter grading.

M176. Visual Communication and Social Advocacy. (4) (formerly numbered Labor and Workplace Studies M176.) (Same as Communication M176.) Seminar, four hours; discussion, one hour (when scheduled). Theory of agitational communication. Uses specific case studies and workshop experiences. Includes video and guest lectures by scholars and activists who integrate their spirituality into their daily work. P/NP or letter grading.

179A. Neoliberalism, Social Justice, and Community Organizing. (4) (formerly numbered Labor and Workplace Studies 179A.) Lecture, three hours. Study of intersection of neoliberalism, democracy, and rise of social justice movements primarily in U.S. This offers in-depth, theoretically rigorous, and empirically-based understanding of dynamics that have produced specific form of crisis that envelopes contemporary politics. Focus on understanding developing development and current structures of neoliberalism as both ideological frame and form of governance. Examination of some of main works on democratic theory and their relationship to issue of social justice that demonstrate how specific pattern of development of neoliberalism in U.S. since 1980 has undermined democratic governance and produced conditions that have deepened levels of inequality. Consideration of emergence of grassroots politics that have organized around issues that challenge or contest neoliberal dominance and attempted to reorient principles of democratic inclusion through their struggles for social change. P/NP or letter grading.

179B. Doing Democracy: Social Movements, Grassroots Politics, and Community Organizing. (4) (formerly numbered Labor and Workplace Studies 179B.) Lecture, three hours. Focus on community organizing and social movements as mechanisms that have been adopted by marginalized or excluded sectors and groups of society to promote their interests and express their needs. Identification of fundamental characteristics of effective and responsive democratic regime. Summarization of critiques that describe means by which those elements are being undermined in current period. Focus on those efforts to promote social justice as basis for inclusive and responsive form of popular sovereignty through politics of social movements and community organizing. Study of various forms of social movements and different models of and approaches to community organizing and their relationship to democratic governance. P/NP or letter grading.

M180. Southern California Regional Economy. (4) (formerly numbered Labor and Workplace Studies M180.) (Same as Urban Planning CM180.) Lecture, three hours. Introduction to regional economy, with emphasis on Los Angeles. Key economic sectors—labor market composition, and review of conflicting portrayals depicting dynamics of region. Two all-day bus tours of key economic regions and guest lectures by regional experts included. Letter grading.
181. Los Angeles Labor and Social Science Research Principles, Methods, and Practices. (4) (Formerly numbered Labor and Workplace Studies 181.) Lecture, three hours. Introduction to basic social science research methods. Through combination of lectures, key readings, and in-hand research project, students develop understanding of critical debates regarding role of research in socioeconomic context that impacts workers and their organizations and others at large. Introduction to several research methods that are highly effective in producing sound and rigorous studies about and for labor movement, including important data that can be useful in policies and political action. Special emphasis given to understanding research that has supported different labor movements. P/NP or letter grading.

182A. Oral History and Collective Memory: Research Methods and Applications of 21st-Century Narratives. (4) (Formerly numbered Labor and Workplace Studies 182A.) Lecture, three hours. Part I of two-part series on oral history, immigrant narratives, and public engagement. Introduction to field of oral history and hands-on experience in interviewing, processing, technology, and public engagement. Readings and discussion of literary theory and oral history theory and methods and examination of how scholars use oral history interviews to develop historical narratives about working class communities. Students learn foundations for designing and executing oral history research projects and undertake independent fieldwork that allows them to apply methods and approaches studied in class. Emphasis on innovative uses of oral history interviews that bring narratives to wide public audience. No prior knowledge or experience with interviewing and processing required. P/NP or letter grading.

182B. Oral History and Collective Memory: Research Methods and Applications of 21st-Century Immigrant Narratives. (4) (Formerly numbered Labor and Workplace Studies 182B.) Lecture, three hours. Part II of two-part series on oral history, immigrant narratives, and public engagement. Introduction to field of oral history and hands-on experience in interviewing, processing, technology, and public engagement. Readings and discussion of literature about oral history theory and methods as they relate to documenting immigrant experience. Students learn foundations for designing and executing oral history research projects and undertake independent fieldwork that allows them to apply methods and approaches studied in class. Emphasis on innovative uses of oral history interviews that bring narratives to wide public audience. No prior knowledge or experience with interviewing and processing required. P/NP or letter grading.

187. Special Courses in Labor and Workplace Studies. (4) (Formerly numbered Labor and Workplace Studies 187.) Lecture, three hours; discussion, one hour. Program-sponsored experimental or temporary courses, such as those taught by visiting faculty members. May be repeated for credit. P/NP or letter grading.

188. Special Courses in Labor and Workplace Studies. (4) (Formerly numbered Labor and Workplace Studies 188.) Seminar, four hours. Program-sponsored experimental or temporary courses, such as those taught by visiting faculty members. May be repeated for credit. P/NP or letter grading.

189. Advanced Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to undergraduate lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

189HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to upper-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

M190A. Introduction to Community-Engaged Research. (4) (Formerly numbered Labor and Workplace Studies M190A.) Seminar (Same as Community Engagement and Social Change M190A.) Three hours. Enrollment by consent of instructor. Designed for students participating in Astin Community Scholars Program. Introduction of principles of community-engaged research. Exploration of intentions behind doing research with community residents and organizations, our responsibilities when conducting research in historically disenfranchised communities, and relationship between socially just research outcomes and methodologies. P/NP or letter grading.

M190B. Community-Engaged Research in Practice: Community Scholars. (4) (Same as Community Engagement and Social Change M190B.) Seminar, three hours. Requisite: course M190A. Enrollment by consent of instructor. Designed for students participating in Astin Community Scholars Program. Students learn from faculty, community stakeholders, and graduate students about emerging organizing models, best practices, and changing landscape in chosen topic. Focus on current topic affecting Angelenos and Los Angeles on six-month dynamic participatory research project. Focus on current topic affecting Angelenos and Los Angeles on six-month dynamic participatory research project. Focus on current topic affecting Angelenos and Los Angeles on six-month dynamic participatory research project. Focus on current topic affecting Angelenos and Los Angeles on six-month dynamic participatory research project. Focus on current topic affecting Angelenos and Los Angeles on six-month dynamic participatory research project. Focus on current topic affecting Angelenos and Los Angeles on six-month dynamic participatory research project. Focus on current topic affecting Angelenos and Los Angeles on six-month dynamic participatory research project. Focus on current topic affecting Angelenos and Los Angeles on six-month dynamic participatory research project. Focus on current topic affecting Angelenos and Los Angeles on six-month dynamic participatory research project. Focus on current topic affecting Angelenos and Los Angeles on six-month dynamic participatory research project. Focus on current topic affecting Angelenos and Los Angeles on six-month dynamic participatory research project. Focus on current topic affecting Angelenos and Los Angeles on six-month dynamic participatory research project. Focus on current topic affecting Angelenos and Los Angeles on six-month dynamic participatory research project. Focus on current topic affecting Angelenos and Los Angeles on six-month dynamic participatory research project. Focus on current topic affecting Angelenos and Los Angeles on six-month dynamic participatory research project. Focus on current topic affecting Angelenos and Los Angeles on six-month dynamic participatory research project.

M190C. Community-Engaged Research in Practice: Community Scholars. (4) (Same as Community Engagement and Social Change M190C.) Seminar, three hours. Requisite: courses M190A, M190B. Enrollment by consent of instructor. Designed for students participating in Astin Community Scholars Program. Students learn from faculty, community stakeholders, and graduate students about emerging organizing models, best practices, and changing landscape in chosen topic. Focus on current topic affecting Angelenos and Los Angeles on six-month dynamic participatory research project. Focus on current topic affecting Angelenos and Los Angeles on six-month dynamic participatory research project. Focus on current topic affecting Angelenos and Los Angeles on six-month dynamic participatory research project. Focus on current topic affecting Angelenos and Los Angeles on six-month dynamic participatory research project. Focus on current topic affecting Angelenos and Los Angeles on six-month dynamic participatory research project. Focus on current topic affecting Angelenos and Los Angeles on six-month dynamic participatory research project. Focus on current topic affecting Angelenos and Los Angeles on six-month dynamic participatory research project. Focus on current topic affecting Angelenos and Los Angeles on six-month dynamic participatory research project. Focus on current topic affecting Angelenos and Los Angeles on six-month dynamic participatory research project. Focus on current topic affecting Angelenos and Los Angeles on six-month dynamic participatory research project.

191A. Labor Studies: Research Principles, Methods, and Practices. (4) (Formerly numbered 191 Seminar, three hours. First part of Labor Studies capstone senior research project series with focus on fundamentals of social science research methods. Through lectures, key readings, and in-class exercises, students develop understanding of critical debates regarding research within socioeconomic and political contexts that impact workers, organizations, and communities at large. Overview of various research methods and techniques, literature review, data collection, and analysis. Focus on workers, labor and immigrant rights movements, policy initiatives, and/or political action in Los Angeles as research lens. P/NP or letter grading.

191B. Labor Studies: Research in Action. (4) Seminar, three hours. Requisite: course 191A. Second part of Labor Studies capstone senior research project series with focus on research methods in action. Through lectures, key readings, in-class exercises, and field work, students develop understanding of capstone research project including refined research question(s), advanced literature review, research design and plan, data collection and analysis, and final paper development. Students develop understanding of qualitative and quantitative research skills with focus on workers, labor and immigrant rights movements, policy initiatives, and/or political action in Los Angeles as research lens. P/NP or letter grading.

194A. Research Group Seminars: Labor Summer Research Program. (Formerly numbered Labor and Workplace Studies 194A.) Seminar, three hours. Enrolled corequisite: course 194C. Designed for undergraduate students who are part of Labor Summer Research Program. Discussion of qualitative applied research methods used by union researchers and scholars engaged in labor relations and workplace studies. Through combination of lectures, key readings, and for credit. May be repeated for credit. Offered in summer only. P/NP or letter grading.

194B. Research Group Seminars: Labor and Workplace Studies. (Formerly numbered Labor and Workplace Studies 194B.) Seminar, three hours. Designed for undergraduate students who are part of research group. Discussion of research methods and current literature in field of labor studies or of research faculty member required. May be repeated for credit. P/NP or letter grading.

194C. Field Research Group Seminar. (4) Seminar, one hour; fieldwork, 15 hours. Designed for undergraduate students who are part of Labor Summer Research Program. Offers opportunity for immersion in applied research in field of labor studies. Field research and analysis contributing to research project. Students learn how to conduct surveys, analyze data, and report their analysis. May be repeated for credit. Offered in summer only. P/NP or letter grading.

195A. Community or Corporate Internships in Labor and Workplace Studies. (4) (Formerly numbered Labor and Workplace Studies 195A.) Tutorial, one hour; fieldwork, 15 hours. Enrolled corequisite. Course 194A. Limited to juniors/seniors. Internship in supervised setting in community agency, labor union, or other organization concerned with work and employment issues. Placement to be arranged by instructor. Students meet on regular basis with instructor and provide periodic written reports on their experience. May be repeated for credit. Individual contract with supervising faculty member required. Offered in summer only. P/NP or letter grading.

195B. Community or Corporate Internships in Labor and Workplace Studies. (2 to 5) (Formerly numbered Labor and Workplace Studies 195B.) Tutorial, to be arranged. Internship- optional course which leads to juniors/seniors. Internship in supervised setting in community agency, labor union, or other organization concerned with work and employment issues. Placement to be arranged by instructor. May be repeated for credit. Individual contract with supervising faculty member required. Offered in summer only. P/NP or letter grading.

199. Directed Research in Labor and Workplace Studies. (2 to 4) (Formerly numbered Labor and Workplace Studies 199.) Tutorial, one hour. Limited to juniors/seniors. Supervised individual research under guidance of faculty mentor. Culminating paper or final paper or project required. May be repeated for credit. Individual contract with supervising faculty member required. P/NP or letter grading.

Graduate Course

375. Teaching Apprentice Practicum. (1 to 4) (Formerly numbered Labor and Workplace Studies 375.) Seminar, three hours. Course work required. Preparation and practice as general and program-specific practice per semester as teaching assistant, associate, or fellow. Teaching apprenticeship under active guidance and supervision of regular faculty member. Responsible for curriculum and instruction at UCLA. May be repeated for credit. S/U grading.
Latin American Studies

Interdepartmental Program

College of Letters and Science

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Program e-mail
Bonnie Taub, PhD, Co-Chair
Kevin B. Terraciano, PhD, Co-Chair

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César J. Ayala, PhD (Sociology)
Stephen A. Bell, PhD (Geography, History)
Verónica Cortínez, PhD (Spanish and Portuguese)
Robin L.H. Derby, PhD (History)
David E. Hayes-Bautista, PhD (Health Policy and Management, Medicine)
Susanna B. Hecht, PhD (Environment and Sustainability, Geography, Urban Planning)
Rubén Hernández-León, PhD (Sociology)
Elizabeth A. Marchant, PhD (Comparative Literature, Gender Studies)
Katherine M. Marino, PhD (History)
Cecilia Menjivar, PhD (Sociology)
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Scope and Objectives

UCLA has been in the forefront of U.S. universities with significant teaching and research interests in Latin American studies for more than 50 years. More than 100 faculty members from 22 departments and professional schools regularly offer a broad range of courses with an emphasis on Latin America. These course offerings in the humanities, social sciences, fine arts, and professional fields provide students with a unique opportunity to focus on Latin America, a region of growing importance.

The Latin American Studies program offers the Master of Arts degree. Students pursue specialized coursework and interests, culminating in an interdisciplinary research study. Cooperative degree programs with the UCLA schools of education and information studies, management, public health, and public affairs provide the opportunity to combine the MA in Latin American Studies with a master’s degree in a professional field.

Information on the undergraduate program in this discipline, which offers a major and a minor in Latin American Studies, can be found in the International and Area Studies section.

Graduate Study

Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Division website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Graduate Degrees

The Latin American Studies Program offers the Master of Arts (MA) degree in Latin American Studies. Three articulated degree programs (Latin American Studies MA/Education MA, Latin American Studies MA/Library and Information Science MLIS, and Latin American Studies MA/Public Health MPH) and two concurrent degree programs (Latin American Studies MA/Management MBA and Latin American Studies MA/Urban Planning MURP) are also offered.

Latin American Studies

Graduate Courses

205. Latin Americanist Scholarship. (4) Lecture, three hours. Panoramic introduction to methods and issues in various disciplines that study Latin America, with guest lecturers from various fields. (Latin American Studies core course.)

250B. Interdisciplinary Seminar: Latin American Studies. (4) Seminar, three hours. Problem-oriented seminar on critical areas stressed in University’s cooperative programs in Latin America.

250C. Interdisciplinary Topics in Latin American Studies. (4) Reading knowledge of Spanish or Portuguese normally required. Seminar devoted to selected topics of an interdisciplinary nature.


M262. HIV/AIDS and Culture in Latin America. (4) (Same as Community Health Sciences M250.) Seminar, three hours. Exploration of cultural, political, and public health context for people living with and at risk for HIV/AIDS and their families in Latin America. Public health aspects, including epidemiology, commodity control, and community interventions, medical anthropological study of experience of those impacted, and grass-roots responses, as well as political/economic/technological context addressing poverty and structural violence. Letter grading.

M264. Latin America: Traditional Medicine, Shamanism, and Folk Illness. (4) (Same as Anthropology M233Q and Community Health Sciences M264.) Lecture, three hours. Recommended preparation: Community Health Sciences 132, bilingual English/Spanish proficiency. Examination of role of traditional medicine and shamanism in Latin America and exploration of how indigenous and mestizo groups diagnose and treat folk illness and Western-defined diseases with variety of health-seeking methods. Examination of art, music, ritual and case examples of religion and healing practices via lecture, film, and audiotape. Letter grading.

M268A-M268B. Seminars: Recent Latin American History. (4) (Same as History M268A-M268B.) Seminar, three hours. Course M268A is requisite to M268B. Reaching knowledge of Spanish and Portuguese normally required. Seminar devoted to selected topics of interdisciplinary nature. In Progress (M268A) and letter (M268B) grading.

291A-291B. Variable Topics in Latin American Studies. (4–4) Seminar, three hours. Selected topics on Latin America. May be repeated for credit with topic change. S/U or letter grading.

501. Cooperative Program. (2 to 8) Preparation: consent of UCLA graduate adviser and graduate dean, and host campus instructor, department chair, and graduate dean. Used to record enrollment of UCLA students in courses taken under cooperative arrangements with USC. S/U grading.

596. Directed Individual Study or Research. (2 to 8) Tutorial, to be arranged. May be repeated, but only 4 units may be applied toward the minimum graduate course requirement. S/U or letter grading.

597. Preparation for MA Comprehensive Examination. (4) Tutorial, to be arranged. Ordinarily taken only during term in which student is being examined. S/U grading.

598. Research for and Preparation of MA Thesis. (4) Tutorial, to be arranged. Only 4 units may be applied toward minimum graduate course requirement. S/U grading.

Law

School of Law

1242 Law Building
Admissions, 71 Dodd Hall
Box 951476
Los Angeles, CA 90095-1476

Law

310-825-4841
Admissions e-mail

Jennifer L. Mnookin, JD, PhD, Dean

Professors

Khaled M. Abou El Fadl, JD, MA, PhD (Omar and Azzameta Alh Endowed Professor of Islamic Law)
E. Tendayi Achiume, JD
Iman Anabtawi, JD, MA
Sameer M. Ashar, JD
Stephen M. Bainbridge, JD, MS (William D. Warren Professor of Law)
LaToya J. Baldwin Clark, JD, MA, PhD, Acting
Asli Ü. Bäli, JD, MPhil, MPA, PhD
Mario Biagioli, MFA, MA, PhD
Steven A. Bank, JD (Paul Hastings Endowed Professor of Business Law)
Stuart A. Banner, JD (Norman Abrams Endowed Professor of Law)
William C. Boyd, JD, MA, PhD
Taijme L. Bryant, JD, MA, PhD
Daniel J. Bussel, JD
Devon W. Carbado, JD (Honorable Harry Pregerson Endowed Professor of Law)
Ann E. Carlson, JD (Shirley and Ralph Shapiro Professor of Environmental Law)
Jennifer M. Chacón, JD
Beth A. Colgan, JD
Kimberle W. Crenshaw, JD, LLM (Promise Institute Professor of Human Rights)
Scott L. Cummings, JD (Robert Henigson Endowed Professor of Legal Ethics)
Joshua F. Dienstag, MA, PhD
Sharon Dolovich, JD, PhD
Ingrid V. Eagly, JD
Kristen E. Eichensehr, JD, MPhil, Acting
Blake E.B. Emerson, JD, MA, MPhil, PhD, Acting
Stephen A. Gardbaum, JD, CPE, MSc, PhD (Stephen Yeazell Endowed Professor of Law)
Robert D. Goldstein, JD, MEd
Laura E. Gómez, JD, MA, PhD
Mark F. Grady, JD
Mark D. Greenberg, JD, DPhil
Cheryl I. Harris, JD (Rosalinde and Arthur Gilbert Foundation Endowed Professor of Civil Rights and Civil Liberties)
Barbara Herman, MA, PhD (Gloria and Paul Griffin Professor of Philosophy)
Jill R. Horwitz, JD, MA, PhD
Leslie N. Johns, MA, MS, PhD

Latin American Studies / 523
The UCLA School of Law is designed to produce lawyers who are well-prepared for the various private and public roles that are assigned to members of the legal profession. The school pioneered clinical teaching, is a leader in interdisciplinary research and training, and is at the forefront of efforts to link research to its effects on society and the legal profession. Students do not undertake a specific major but have the opportunity to enroll in a wide variety of courses dealing with various legal fields. The law school is unique in that it also offers students an opportunity to specialize in six specific areas of law: business law and policy; critical race studies; international and comparative law; and law and philosophy; media, entertainment, and technology law and policy; and public interest law and policy. The school offers a three-year curriculum leading to the JD degree and three advanced degrees—Master of Laws (LLM), Master of Legal Studies (MLS), and Doctor of Juridical Science (SJD).
Lesbian, Gay, Bisexual, Transgender, and Queer Studies / 525

170. Race and Racism in California Legal History, 1846 to Present. (4) Seminar, 14 hours. Limited to freshmen/sophomores. Exploration of California legal history, with focus on issues of race and racism, beginning with mid-19th-century transition from Mexican Alta California and statehood. Topics include state measures affecting California Indians in 19th century, African Americans in California's 19th-century history, measures to curtail Chinese immigration and race riots. Limited to two hours. Letter grading.

173. Topics in American Constitutional History. (4) Lecture, three hours. Introduction to major themes, events, and cases in American constitutional history. U.S. Supreme Court decisions and other sources of constitutional meaning, including popular movements and expressions of constitutional principle from actors in other branches of federal government and in states. Emphasis on background and ideological context for particular constitutional controversies at various points in American history, with more formal analysis of particular decisions and competing methods of constitutional interpretation considered. Topics include origins of judicial review, debates over meaning of federalism in early republic, slavery and constitution, Reconstruction Amendments, laissez-faire constitutionalism, citizenship and empire, origins of civil liberties, New Deal constitutionalism, and prehistory of Brown versus Board of Education. P/NP or letter grading.

175. Seminar: Individual Rights Protected by U.S. Constitution. (4) Seminar, two hours. Limited to juniors/seniors. Broad introduction to and examination of individual rights protected under Bill of Rights and 14th Amendment to U.S. Constitution, including freedom of speech and press, religious freedom, right to privacy (including procreative rights) and due process of law, constitutional protection against discrimination based on race and gender, and basic criminal procedure protections. Emphasis on principal Supreme Court cases establishing scope of those rights and their limits. Letter grading.

180. Special Topics in Law. (4) Lecture, four hours. Topics of special interest to undergraduate students. Specific topics vary each term depending on particular interest of instructors or students. May be repeated for credit. P/NP or letter grading.

182. Law and Popular Culture. (4) Lecture, four hours. Focus on interface between two important subjects—law and popular culture. Students view series of films or television shows related to law, lawyers, and legal system. Discussion of pop culture treatment of subjects such as adversary system, good and bad lawyers, female lawyers, lawyers from lesbian, gay, bisexual, and transgender community, minority lawyers, work life of lawyers, legal education, ethical issues, jury system, and criminal and civil justice, drawing on film theory and filmmaking technique to deepen understanding of interrelationship between law and popular culture. Illumination of ways in which pop culture products both reflect and change social views about law and lawyers. Offered in summer only. P/NP or letter grading.

183. Law and Order. (2) Lecture, two hours. Introduction to basic principles of criminal law. How to read and interpret judicial cases and provisions of penal code to learn how American criminal justice system works. Discussions structured to simulate experience of typical law school classroom. P/NP or letter grading.

184. Introduction to Legal Education. (4) Lecture, four hours. Preliminary introduction to legal pedagogy and overview of American legal system. Analysis of appellate and U.S. Supreme Court cases and legislative materials to develop foundational law school skills and become familiar with principles of both scholarly and practice-oriented legal analysis. Topics include introduction to case analysis, reading cases, exploring precedent and stare decisis, separation of powers, and statutory interpretation. P/NP or letter grading.

185. Corporate Mock Trial. (4) Lecture, four hours. Introduction to basic principles of business law, such as how law applies to various business entities, duties and liabilities of corporate officers and directors, and shareholder derivative suits. American legal system and how litigation progresses from filing of complaints through trial. Students participate in mock trial at end of course. P/NP or letter grading.

186. Law and Order. (4) Lecture, four hours. Introduction to basic principles of criminal law. How to read and interpret judicial cases and provisions of penal code to learn how American criminal justice system works. Discussions structured to simulate experience of typical law school classroom. P/NP or letter grading.

187A. Legal History Colloquium. (3) Seminar, two hours. Corequisite: course 193. Reading of scholarly papers prepared by school faculty members and other scholars in fields of legal history, economics, and political science. Preparation of critiques and discussion of issues in seminar setting with author of papers. P/NP or letter grading.

187B. Politics and International Law Colloquium. (3) Seminar, two hours. Corequisite: course 193. Limited to College Honors students. Lectures on alternative theoretical approaches (including realism, institutionalism, and constructivism) to understand relationship between politics and international law. Weekly presentations of original 10 leading law and political science scholars from the U.S. and abroad. Reading of scholarly papers, preparation of critiques, and discussion of issues in seminar setting with authors of papers. P/NP or letter grading.

189. Advanced Honors Seminars, (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to undergraduate lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

191. Variable Topics Research Seminars: Law—California Legal History. (4) Seminar, two hours. Corequisite: course 170. Research project, selected in consultation with faculty member and using original and secondary materials, to be conducted, followed by major presentation of student work to class and writing of major research paper. Letter grading.

193. Journal Club Seminars: Law. (1) Seminar, one hour; discussion, two hours. Corequisite: course 187A. Adjunct course limited to undergraduate students taking law colloquium. Intensive review and follow-up of scholarly papers presented in colloquium series. Reading of legal cases and supplemental material to provide legal framework for each scholarly paper presented in colloquium. Supervised by faculty member in charge of colloquium series. May be repeated for credit. P/NP grading.

199. Directed Research in Law. (1 to 6) Seminar, one hour; discussion, two hours. Corequisite: course 193. Research project, selected in consultation with faculty member and using original and secondary materials, to be conducted, followed by major presentation of student work to class and writing of major research paper. Letter grading.

LESBIAN, GAY, BISEXUAL, TRANSGENDER, AND QUEER STUDIES

Interdisciplinary Minor
College of Letters and Science

361 Kaplan Hall
Box 957233
Los Angeles, CA 90095-7233

Lesbian, Gay, Bisexual, Transgender, and Queer Studies
310-825-7650

Mitchell B. Morris, PhD, Chair

Faculty Committee

Anurima Banerji, PhD (World Arts and Cultures/Dance)
Cesar D. Favila, PhD (Musicology)
Robert W. Fink, PhD (Musicology)
Alicia Gaspar de Alba, PhD (Chicana and Chicano Studies, English, Gender Studies)
Michael A. Hill, PhD (Mathematics)
Ian W. Holloway, MSW, MPH, PhD (Social Welfare)
Kerri L. Johnson, PhD (Communication, Psychology)
Peter D. Kazaras, JD (Music)

Rachel C. Lee, PhD, ex officio (English, Gender Studies, Society and Genetics)
Alma Lopez Gaspar de Alba, PhD (Chicana and Chicano Studies, English)
Elizabeth A. Marchant, PhD, ex officio (Comparative Literature, Gender Studies)

Sean A. Metzger, PhD (Theater)
Mitchell B. Morris, PhD (Musicology)
Steven D. Nelson, PhD (Art History)
Sylvan M. Oswald, MFA (Theater)
Amy E. Ritterbusch, PhD (Social Welfare)
Carlos E. Santos, PhD (Social Welfare)

James A. Schultz, PhD (Gender Studies, German Languages)

Robert Bradley Sears, JD (Law)
Gary M. Segura, PhD (Chicana and Chicano Studies, Political Science, Public Policy)

Scope and Objectives

Although the initial focus in lesbian, gay, bisexual, transgender, and queer studies is usually on minority sexualities and transgenderism, it is impossible to study them in any meaningful way without raising questions about gender, race, ethnicity, economics/class, globalism, and the construction of scientific knowledge. Thus lesbian, gay, bisexual, transgender, and queer studies, which may at first seem to concern the private practices of a small number of people, inevitably leads to the much larger study of sexuality and culture. The Lesbian, Gay, Bisexual, Transgender, and Queer Studies program represents an important vantage point from which to investigate the social construction of sexual identity, social control of behavior, changing definitions of the family, and the place of sexual and gender expression in the public and private spheres. Because of the kinds of questions asked, lesbian, gay, bisexual, transgender, and queer studies is the
site of some of the most exciting work being done today on the relationship between sexuality and culture.

The minor in Lesbian, Gay, Bisexual, Transgender, and Queer Studies offers students the opportunity to study sexuality from a variety of cultural and disciplinary perspectives meant to engage students in some of the most cutting-edge research in lesbian, gay, bisexual, trans, and queer studies. In addition, seniors in the minor are expected to do a capstone internship in an international, national, or community organization, thereby acquiring invaluable firsthand knowledge, experience, and data. After completing the minor, students should be familiar with the theoretical tools that different disciplines employ to study sexuality. They should be acquainted with some of the many different ways sexuality has been organized in the past and is organized in different cultures in the present and should have an enhanced understanding and appreciation both of the sexual diversity of the world in which they live and of the complex ways in which sexuality intersects with other categories of identity and practice.

Undergraduate Study

Lesbian, Gay, Bisexual, Transgender, and Queer Studies Minor

To enter the Lesbian, Gay, Bisexual, Transgender, and Queer Studies minor, students must have an overall grade-point average of 2.0 or better.

Required Upper-Division Courses (28 units): Lesbian, Gay, Bisexual, Transgender, and Queer Studies M114, 180SL, and five additional courses (including at least one 181 course and one 183 course) to be selected from Asian American Studies 187C, Education 147, Gender Studies 187, Lesbian, Gay, Bisexual, Transgender, and Queer Studies M101A through M101D, M107B, M115, M116, M125, M126, M133, M136, M137, M141, M142, M147A, M167, M181, M182, M183, M190, M191D, M191E, Psychology 129E, Scandinavian 174B, Sociology 168D.

Students may petition to apply a non-listed course to the minor if they can show that lesbian, gay, bisexual, transgender, or queer issues represent a significant part (at least 30 percent) of the course content. Students are strongly urged to keep in close contact with the student affairs officer who can help them plan their course of study.

A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor.

Each minor course must be taken for a letter grade, and students must have an overall grade-point average of 2.0 or better in the minor. Successful completion of the minor is indicated on the transcript and diploma.

Lesbian, Gay, Bisexual, Transgender, and Queer Studies

Lower-Division Courses

19. Fiat Lux Freshman Seminars. (1 Seminar) Discussion. Required of all entering students. May be repeated for credit. May be taken in addition to other introductory courses.

98. Honors Freshman Seminars. (1 Seminar) Discussion. Required of all entering students. May be repeated for credit. May be taken in addition to other introductory courses.

99. Honors Sectional. (1 Seminar) Discussion. Required of all entering students. May be repeated for credit. May be taken in addition to other introductory courses.

100. Honors Seminar. (1 Seminar) Discussion. Required of all entering students. May be repeated for credit. May be taken in addition to other introductory courses.

101. Honors Writing. (1 Seminar) Discussion. Required of all entering students. May be repeated for credit. May be taken in addition to other introductory courses.

102. Honors Writing. (1 Seminar) Discussion. Required of all entering students. May be repeated for credit. May be taken in addition to other introductory courses.

103. Honors Writing. (1 Seminar) Discussion. Required of all entering students. May be repeated for credit. May be taken in addition to other introductory courses.

104. Honors Writing. (1 Seminar) Discussion. Required of all entering students. May be repeated for credit. May be taken in addition to other introductory courses.

105. Honors Writing. (1 Seminar) Discussion. Required of all entering students. May be repeated for credit. May be taken in addition to other introductory courses.

106. Honors Writing. (1 Seminar) Discussion. Required of all entering students. May be repeated for credit. May be taken in addition to other introductory courses.

107. Honors Writing. (1 Seminar) Discussion. Required of all entering students. May be repeated for credit. May be taken in addition to other introductory courses.

108. Honors Writing. (1 Seminar) Discussion. Required of all entering students. May be repeated for credit. May be taken in addition to other introductory courses.

Undergraduate Study

Lesbian, Gay, Bisexual, Transgender, and Queer Studies Minor

To enter the Lesbian, Gay, Bisexual, Transgender, and Queer Studies minor, students must have an overall grade-point average of 2.0 or better.

Required Upper-Division Courses (28 units): Lesbian, Gay, Bisexual, Transgender, and Queer Studies M114, 180SL, and five additional courses (including at least one 181 course and one 183 course) to be selected from Asian American Studies 187C, Education 147, Gender Studies 187, Lesbian, Gay, Bisexual, Transgender, and Queer Studies M101A through M101D, M107B, M115, M116, M125, M126, M133, M136, M137, M141, M142, M147A, M167, M181, M182, M183, M190, M191D, M191E, Psychology 129E, Scandinavian 174B, Sociology 168D.

Students may petition to apply a non-listed course to the minor if they can show that lesbian, gay, bisexual, transgender, or queer issues represent a significant part (at least 30 percent) of the course content. Students are strongly urged to keep in close contact with the student affairs officer who can help them plan their course of study.

A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor.

Each minor course must be taken for a letter grade, and students must have an overall grade-point average of 2.0 or better in the minor. Successful completion of the minor is indicated on the transcript and diploma.
Life Sciences

Lower-Division Courses

1. Evolution, Ecology, and Biodiversity. (5) Lecture, three hours; laboratory; two hours; one field trip. Introduction to principles and mechanisms of evolution by natural selection; population, behavioral, and community ecology; and biodiversity, including major taxa and their evolutionary, ecological, and physiological relationships. P/NP or letter grading.

2. Cells, Tissues, and Organs. (4) Lecture, three hours; discussion, 75 minutes. Enforced requisite: Chemistry 14A or 20A. Introduction to basic principles of cell structure, organization of cells into tissues and organs, and principles of organ systems. Letter grading.

3. Introduction to Molecular Biology. (4) Lecture, three hours; discussion, 75 minutes. Requisites: course 2 (enforced), Chemistry 14C or 30A (may be taken concurrently). Corequisites: course 23L (students must take 23L concurrently with course 3 if they do not plan to take course 14A). Principles of biochemistry and molecular biology. Letter grading.

3A. Introduction to Molecular Biology Laboratory. (5) Laboratory, three hours; discussion, one hour. Enforced corequisite: course 3. Introductory wet-laboratory designed to prepare students for upper-division laboratory courses for all life sciences departments. Use of wet-laboratory/bioinformatics methods and tools applicable in variety of biological fields, molecular biology, microbiology, genomics, bioinformatics, and psychology. Students conduct inquiry-based laboratory experiments and learn basic wet-laboratory skills to guide them to refine their skills to write their own laboratory reports and to work in groups as team. Letter grading.

3H. Introduction to Molecular Biology (Honors). (5) Lecture, two and one half hours; discussion, 90 minutes; movie section, two and one half hours. Enforced requisites: course 2, and Chemistry 14C or 30A. Honors course parallel to course 3, but at a more advanced level. Letter grading.


7A. Cell and Molecular Biology. (5) Lecture, three hours; discussion, 75 minutes. Introduction to basic principles of cell structure and cell biology, biochemistry, and molecular biology, P/NP or letter grading.

7B. Genetics, Evolution, and Ecology. (5) Lecture, three hours; laboratory, 110 minutes. Enforced requisite: course 7A. Principles of Mendelian inheritance and population genetics. Introduction to principles and mechanisms of evolution by natural selection, population, behavioral, and community ecology, and biodiversity, including major taxa and their evolutionary, ecological, and physiological relationships. Letter grading.

7C. Physiology and Human Biology. (5) Lecture, three hours; discussion, 75 minutes. Enforced requisite: course 7B. Organization of cells into tissues and organs and principles of physiology of organ systems. Introduction to human genetics and genomics. Letter grading.

15. Life: Concepts and Issues. (5) Lecture, three hours; discussion, two hours. Introduction to important concepts and issues in the field for non-life sciences majors. Topics include chemistry of life, genetics, physiology, evolution, and ecology—all explored in lecture and debates, with a writing component. P/NP or letter grading.

Undergraduate Study

Life Sciences Core Curriculum

Required: Chemistry and Biochemistry 14A, 14B, 14BL, 14C, and 14D, or 20A, 20B, 20L, 30A, 30AL, and 30B; Life Sciences 30A, 30B, and 40 or Statistics 13, or Mathematics 3A, 3B, and 3C, or 31A, 31B, and 32A; Physics 1A, 1B, 4AL, and 4BL, or 5A, 5B, and 5C.

Students must also complete one of two Life Sciences sequences—either Life Sciences 1, 2, 3, 4, and 23L, or 7A, 7B, 7C, 7L, and 107. They may not substitute courses in either sequence.

Each core curriculum course must be passed with a grade of C— or better, and all courses must be completed with an overall grade-point average of 2.0 or better. Students receiving a grade of D or F in two core curriculum courses, either in separate courses or repetitions of the same course, are subject to dismission from the major.

Transfer Students

Transfer applicants with 90 or more units must complete the following introductory courses prior to admission to UCLA: one year of general biology with laboratory for majors, preferably equivalent to Life Sciences 1 and 2, or 7A, 7B, and 7C, one year of calculus, one year of general chemistry with laboratory for majors, and one semester of organic chemistry with laboratory. A second semester of organic chemistry or one year of calculus-based physics is strongly recommended but not required for admission.

Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

Undergraduate Research Consortium in Functional Genomics

The Undergraduate Research Consortium in Functional Genomics (URCGF) offers a sequence of laboratory-intensive courses designed for undergraduate students committed to pursuing research. The innovative partnership between UCLA and the Howard Hughes Medical Institute (HHMI) was formed through a major award to professor Utpal Banerjee. The HHMI Professors Program seeks to engage leading scientists in transmitting the excitement and values of scientific research to undergraduate education. The goal of the URCGF is to emphasize the importance for academia and industry of research in the fields of medicine and biotechnology.

Sponsored by the Life Sciences core, the URCGF offers undergraduate students from any UCLA major the opportunity to learn biological research techniques early in their educational careers and within a structured institutional environment. Students devote between one and four terms to the study of biological research in genetics, bioinformatics, and functional genomics. The training emphasizes research concepts in basic science such as the model organism and in advanced research techniques such as electron microscopy.

Students participate in one structured lower-division course—Biomedical Research 10H—which is limited to 30 students per term and is offered every term. After satisfactorily completing course 10H and with instructor consent, students may participate in up to three terms of upper-division research in genes, genetics, and genomics. The upper-division courses—Biomedical Research 100HA, 100HB, 100HC—do not involve pre-existing laboratory experiments. Syllabi for the courses are instead based on individual research projects whose outcomes students discover through the course of their studies. It is anticipated that only about one third of the students who complete course 10H will subsequently enroll in course 100HA, and students are advised that they can benefit significantly from course 10H alone.

Each course must be taken for a letter grade. Under special circumstances, one course may be waived for students who have prior research experience in fields covered by the courses. Students who complete the required courses receive a certificate of merit indicating their completion of the consortium.

To participate, students must be accepted into the Undergraduate Research Consortium in Functional Genomics. Interested students should contact the URCGF coordinator in the Molecular, Cell, and Developmental Biology Student Affairs Office, 128A Hershey Hall, 310-825-7109, for information regarding admission and an application. Applications are due no later than Friday of the fourth week of the term prior to the term in which students plan to enroll in course 10H.
15L: Life Concepts and Issues Laboratory (1) laboratory, two hours. Requisite or corequisite: course 15. Broad introduction to biology, with focus on scientific literacy and thinking. Topics include scientific thinking and decision making to interpret and analyze data, evolution and genetics, physiology (chemiosmotic coupling, nutrition, reproduction, endocrinology, and neurobiology), and human behavioral biology. Letter grading.

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

20. Quantitative Concepts for Life Sciences. (5) Lecture, discussion, preparation, and discussion; three hours of laboratory; one hour. Preparation: three years of high school mathematics (to algebra II), some basic familiarity with computers. Introduction to variety of quantitative concepts that are relevant to biology. Designed to enhance quantitative skills that are essential for success in life sciences, chemistry, mathematics, and physics courses that make up core curriculum for life sciences majors at UCLA. Biological examples used throughout to gain appreciation of relevance of mathematics to biology. Letter grading.

23L. Introduction to Laboratory and Scientific Methodology. (3) Lecture, one hour; laboratory, three hours. Preparation: course 7B. Recommended to be taken concurrently with course 7C. Introductory life sciences laboratory designed for undergraduate students. Opportunity to conduct wet-laboratory and cutting-edge research, with laboratory experiments. Students work in groups of three conducting experiments in areas of physiology, metabolism, cell biology, molecular biology, genotyping, and bioinformatics. Letter grading.


30B. Mathematics for Life Scientists. (5) Lecture, three hours; laboratory, two hours. Enforced requisite: course 30A. Introduction to concept of matrices and linear transformations to equip students with some basic tools for solving dynamical problems, using linear systems. Examples from ecological, physiological, chemical, and other systems. Letter grading.

M32. Essential Calculus for Mathematical Biologists. (4) (Same as Computational and Systems Biology M32 and Mathematics M212) Lecture, three hours; discussion, one hour. Requisites: courses 30A, 30B. Not open to students with credit for Mathematics 31A, 31B, 32A, or 32B. Designed for life sciences students. Methods and results of single and multivariable calculus essential for quantitative training in biology. Limits, differentiation (single and several variables), optimization, integration and methods of integration, Taylor and other power series, vector valued functions, gradients, and Lagrange multipliers. P/NP or letter grading.

40. Statistics for Biological Systems. (5) Lecture, three hours; laboratory, two hours. Requisite: course 30A. Designed for life sciences students. Introduction to statistics with emphasis on computer simulation of chance events to complement for traditional, data-based approach. Simulations allow for deeper understanding of statistical concepts, and are applicable to wider class of distributions and estimators. Students will learn simple programming language to carry out statistical simulations and apply them to classic problems of elementary statistics. Letter grading.

89. Honors Seminars. (1) Seminar, three hours. Limit: 20 students. Designed as adjunct to lower-division lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

89HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to lower-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

97. Variable Topics in Life Sciences. (1 to 4) Seminar two hours; discussion, one hour. Preparation: Preparatory study or development in life sciences. Consult Schedule of Classes for topics and instructors. May be repeated once for credit with consent of instructor. P/NP or letter grading.

98XA. PEERS Collaborative Learning Workshops for Life Sciences Majors. (1) Seminar, three hours. Corequisite: associated undergraduate lecture course in life sciences. Limited to Program for Excellence in Education and Research in Science (PEERS) students. Development of intuition and problem-solving skills in collaborative learning environment. May be repeated three times, but only 1 unit may be applied toward graduation. P/NP grading.

98XB. PEERS Collaborative Learning Workshops for Life Sciences Majors. (1) Seminar, three hours. Corequisite: associated undergraduate lecture course in life sciences. Limited to Program for Excellence in Education and Research in Science (PEERS) students. Development of intuition and problem-solving skills in collaborative learning environment. May be repeated three times, but only 1 unit may be applied toward graduation. P/NP grading.

99. Student Research Program. (1 to 2) Tutorial (supervised research or other scholarly work), three hours per week per unit. Entry-level research for lower-division students. Students must be in good academic standing and enrolled in minimum of 12 units (excluding this course). Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP grading.

107. Genetics. (5) Lecture, three hours; discussion, 75 minutes. Requisites: courses 7C, 23L, Chemistry 14A (or 20A), 14C (or 30A). Not open for credit to students with credit for course 4. Advanced Mendelian genetics, recombinant DNA, fundamental genetics, DNA, RNA, and protein synthesis, DNA, RNA, genetic code, gene regulation, and populations. Letter grading.

110. Career Exploration in Life Sciences. (2) Seminar, two hours. Recommended for sophomore and incoming transfer students. Designed to help life sciences students expand awareness of their interests, needs, and skills to make deliberate career choices. Introduction to many components that go into making effective career decisions to help students explore diversity of career options for life sciences majors. P/NP grading.

130. Science Classroom Observation and Participation Course. (4) Preparation: completion of three mathematics and/or science courses at level required of science majors. Observation, participation, and assisting in science classes at elementary, middle, and secondary schools. May be repeated for credit. P/NP grading.

192. Methods and Application of Collaborative Learning Theory in Life Sciences. (3) Seminar, one hour; clinic, six hours. Requisites: course 192A (may be taken concurrently) and at least one term of prior experience in same course in which collaborative learning theory is practiced and refined under supervision of instructors. With instructor guidance, students apply educational principles based on current education research, assist with development of innovative instructional materials, and receive frequent feedback on their progress. May be repeated three times for credit. Individual study in regularly scheduled meetings with faculty mentor to finalize course syllabus. Individual contract with faculty mentor required. May not be repeated. Letter grading.

192B, 192C, 192D, 192E may not be taken for more than total of 4 times or 4 courses. Letter grading.

192D. Methods and Application of Collaborative Learning Theory in Life Sciences. (3) Seminar, one hour; clinic, six hours. Requisites: course 192A (may be taken concurrently) and at least one term of prior experience in same course in which collaborative learning theory is practiced and refined under supervision of instructors. With instructor guidance, students apply educational principles based on current education research, assist with development of innovative instructional materials, and receive frequent feedback on their progress. May be repeated three times for credit. Combination of courses 192B, 192C, 192D, and 192E may not be taken for more than total of 4 times or 4 courses. Letter grading.

192C. Methods and Application of Collaborative Learning Theory in Life Sciences. (4) Seminar, three hours; clinic, nine hours. Requisites: course 192A (may be taken concurrently) and at least one term of prior experience in same course in which collaborative learning theory is practiced and refined under supervision of instructors. With instructor guidance, students apply educational principles based on current education research, assist with development of innovative instructional materials, and receive frequent feedback on their progress. May be repeated three times for credit. Combination of courses 192B, 192C, 192D, and 192E may not be taken for more than total of 4 times or 4 courses. Letter grading.
192D. Methods and Application of Collaborative Learning Theory in Life Sciences. (2) Seminar, three hours; clinic, three hours. Requisites: course 192A (may be taken concurrently) and at least one term of prior experience in same course in which collaborative learning theory is practiced and refined under supervision of instructors. With instructor guidance, students apply pedagogical principles based on current education research, visit with development of innovative instructional materials, and receive frequent feedback on their progress. May be repeated three times for credit. Combination of courses 192B, 192C, 192D, and 192E may not be taken for more than total of 4 times or 4 courses. Letter grading.

192E. Methods and Application of Collaborative Learning Theory in Life Sciences. (1) Seminar, one hour; clinic, two hours. Requisites: course 192A (may be taken concurrently) and at least one term of prior experience in same course in which collaborative learning theory is practiced and refined under supervision of instructors. With instructor guidance, students apply pedagogical principles based on current education research, assist with development of innovative instructional materials, and receive frequent feedback on their progress. May be repeated three times for credit. Combination of courses 192B, 192C, 192D, and 192E may not be taken for more than total of 4 times or 4 courses. Letter grading.

192F. Undergraduate Practicum in Life Sciences. (4) Seminar, two hours; clinic, nine hours. Requisites: one course from 1, 2, 3, 4, 7A, 7B, 7C, 20, 23L, 30A, 30B, 107, 110. Limited to sophomores/juniors/seniors. Advanced training and supervised practicum for experienced undergraduate students. Under guidance of faculty members, students refine their professional skills and take leadership roles in mentoring students. May be repeated for credit. Letter grading.

199. Directed Research or Senior Project in Life Sciences. (2) Tutorial, two hours. Enforced requisite: course 3. Limited to juniors/seniors. Supervised individual research or investigation under guidance of faculty mentor. Culminating paper/project required. May be repeated for credit. Individual contract required. P/NP or letter grading.

Graduate Courses

375. Teaching Apprentice Practicum, (1 to 4) Seminar, to be arranged. Preparation: apprentice personnel employment as teaching assistant, associate, or fellow. Teaching apprenticeship under active guidance and supervision of regular faculty member responsible for curriculum and instruction at UCLA. May be repeated for credit. S/U grading.

495. Preparation for College-Level Teaching in Life Sciences. (2) Seminar, two hours. Corequisite: course 375. Designed for graduate students who are teaching assistants in Life Sciences Core Curriculum for first time and to be taken concurrently in term in which they teach. Prepares students for college-level teaching in large enrollment undergraduate courses, and provides professional development to support students pursuing diverse careers in life sciences. Study of inclusive, student-centered, and evidence-based teaching methodologies that include active learning, group work, formative assessment, backward course design, and reflective teaching practices that incorporate peer observations and constructive feedback. May not be repeated for credit. S/U grading.

Linguistics

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Thomas J. Hinnebusch, PhD
Edward L. Keenan, PhD
H. Craig Melchert, PhD (A. Richard Diebold, Jr., Endowed Professor Emeritus of Indo-European Studies)
Pamela L. Munro, PhD
Edward P. Stabler, PhD

Associate Professors
David M. Goldstein, PhD
Timothy Hunter, PhD
Jessica L. Reit, PhD
W. Harold Torrence, PhD

Assistant Professors
Dylan T. Bumford, PhD
Jesse A. Harris, PhD
Stefan Keine, PhD
Claire Moore-Cantwell, PhD
Ethan J. Poole, PhD

Lecturer
Benjamin J. Lewis, MA

Scope and Objectives

The goal of the Department of Linguistics is the enrichment of knowledge about the nature, grammar, and history of human language. Linguistics is a theoretical discipline, akin to philosophy, anthropology, and cognitive psychology. It is important for prospective students to understand that studying linguistics is not a matter of learning to speak many languages. Linguistics courses draw examples from the grammars of a wide variety of languages, and the more languages linguists know about in depth (as distinct from possessing fluency in the use of them), the more likely they are to discover universal properties. It is also possible to pursue these universal aspects of human language through the intensive in-depth study of a single language. This accounts for the high proportion of examples from English and familiar European languages found in linguistics courses and research publications.

The core areas of linguistic theory are phonology (with its roots in phonetics), morphology, syntax, and semantics. A grammar is a system of rules that characterize the phonology, morphology, syntax, and semantics of a natural language. The properties of grammars are the central focus of linguistic theory.

Because language is central to all humanistic disciplines, as well as to several social sciences areas, it is studied from many points of view. Linguistics itself cannot be said to recognize a single optimal approach to the subject. Hence, the courses provide a variety of approaches that reflect the diversity of the field.

The Linguistics Department has consistently been ranked among the very best linguistics departments in the country. It offers programs leading to the Bachelor of Arts, Master of Arts, and PhD degrees.

Undergraduate Study

The majors described below are of three types: (1) a major that concentrates entirely on general linguistics, (2) several majors that combine the basic courses of the general program with a language concentration or other related fields, and (3) a major in Applied Linguistics. The combined majors in conjunction with instructional certification programs are especially appropriate for students who have non-university teaching careers as goals.

A 2.0 grade-point average in linguistics courses is required for all Linguistics Department majors.

Linguistics BA

Linguistics is the study of languages as a general phenomenon. It aims to help answer broad questions concerning the nature of human cognition and communication. Students will learn about language universals as well as the ways in which languages differ from one another in terms of their sound patterns, syntax, and the way they encode meaning. They will also learn about the linguistic theories explaining and constraining linguistic knowledge, informed in part by experimental investigations of child language acquisition and adult language processing. Successful graduates will receive a cognitive science education with a focus on language; they will develop skills in data analysis, analytic reasoning, and experimental methods.

Learning Outcomes

The Linguistics major has the following learning outcomes:

• Ability to apply critical thinking skills through linguistic data analysis in phonetics, phonology, syntax, and at least one other subfield
• Understanding of advanced theoretical concepts and/or analytical techniques in at least one subfield
• Ability to write technical material in linguistics, including language description and theory-based analysis
• Ability to access scholarly literature on language structure and use it in research

The Linguistics major has the following learning outcomes:

• Ability to apply critical thinking skills through linguistic data analysis in phonetics, phonology, syntax, and at least one other subfield
• Understanding of advanced theoretical concepts and/or analytical techniques in at least one subfield
• Ability to write technical material in linguistics, including language description and theory-based analysis
• Ability to access scholarly literature on language structure and use it in research
Preparation for the Major

Required: Linguistics 20; two of the following: Philosophy 31, Psychology 10 (or 100A), one cultural anthropological course; completion of the equivalent of the sixth term of one foreign language and the third term of a second foreign language.

Students who complete an advanced language course are considered to have completed the equivalent of whatever courses are requisite to that one (e.g., if students complete French 100, they have automatically satisfied the requirement of the sixth term of work in one language). Students are required to complete at least the equivalent of the third term in a language other than those in the Romance, Slavic, or Germanic families. This requirement may be satisfied either as part of or in addition to the language requirement described in the preceding paragraph.

Transfer Students

Transfer applicants to the Linguistics major with 90 or more units must complete as many of the following introductory courses as possible prior to admission to UCLA: one introduction to linguistics course, two courses from symbolic logic, introductory psychology or psychological statistics, or cultural anthropology, and two years of one foreign language and one year of a second foreign language (at least one year must be in a language other than those in the Romance, Slavic, or Germanic families).

Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

The Major

Required: Eleven upper-division or graduate courses, including Linguistics 103, 120A, 120B, two courses from 110, 120C, and 130 (or 132), and two courses from 165A, 165B, 165C (students may substitute courses 200A, 200B, and 200C for 165A, 165B, and 165C respectively if they receive grades of A in 120A, 120B, and 120C respectively and have consent of instructor). Courses 165A, 165B, and 165C, or 200A, 200B, and 200C, are recommended for students planning linguistics graduate work. The remaining four courses are electives, three of which must be linguistics courses (no more than one course from 197, 198A, and 199 may be applied toward the major). The other course may be in linguistics or in another field as follows: Classics 180, English 113A, 113B, Philosophy C127A, C127B, 172, Psychology 120A, 133C, or an upper-division course in a foreign language beyond the sixth term. Nonlinguistics courses not on the list may be used as electives only in consultation with an adviser.

Linguistics 198A and 198B, or 199, are recommended for students planning to pursue graduate work in linguistics, since they provide an opportunity to engage in independent research and to write a paper that can be submitted to graduate admissions committees. To enroll in the courses, students must consult with the department senior essay and honors counselor.

Applied Linguistics BA

The Applied Linguistics major investigates linguistic issues relevant to the everyday world, shedding light on the nature of language and language use. Students will learn linguistic theory, the study of the structure of human language generally. With its focus on service learning, students will also learn linguistic practice, engaging in the community, schools, and work places of our geographic setting. Successful graduates will be well acquainted with language use from a variety of perspectives and experiences, and will be able to apply this knowledge to a wide variety of practices including language teaching, speech pathology, and translation and interpretation.

Learning Outcomes

The Applied Linguistics major has the following learning outcomes:

- Ability to apply critical thinking skills through linguistic data analysis in phonetics, phonology, syntax, and at least one other subfield
- Understanding of advanced theoretical concepts and/or analytical techniques in at least one subfield
- Ability to write technical material in linguistics, including language description and theory-based analysis
- Ability to access scholarly literature on language structure and use it in research

Preparation for the Major

Required: Anthropology 4 or Psychology 10, Linguistics 20, and completion of the equivalent of the sixth term of one foreign language.

Students who complete an advanced upper-division language course are considered to have completed the equivalent of whatever courses are requisite to that advanced language course (e.g., if students complete German 152, they have automatically satisfied the requirement of the sixth term of work in German).

Transfer Students

Transfer applicants to the Applied Linguistics major with 90 or more units must complete the following introductory courses prior to admission to UCLA: two years of one foreign language, one introduction to linguistics course, one introduction to psychology course, and one introduction to linguistic anthropology course.

Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

The Major

Required: Ten upper-division courses as follows: Linguistics 102 (or 103), 119A (or 120A), 120B, 130 or CI40, three courses selected from Linguistics 104, 115, 130, CI40, M141, 144, M146, 170, 191B, two upper-division elective courses taught in the Linguistics Department, and one course selected from Anthropology 151, M152P, M152Q, M152R, 153, 154P, 154Q, M156, M157W, 159, Arabic 180, 181, Armenian 110, Chicana and Chicano Studies 164SL, M167SL, M170SL, Communication 119, M125, M144A, French 105, German 140, Hebrew 180A, 180B, Iranian 131, Linguistics M116, M146, M176A, M176B, M177, M178, Portuguese 100A, 100B, Slavic CM114, Spanish 100A, 100B, 160.

Linguistics and Anthropology BA

The Linguistics and Anthropology major combines the basic courses of the general linguistics program with that of anthropology, the study of humankind. Students will learn linguistic theory, the study of the structure of human language generally. They will also learn the many ways in which language affects human history, social identity, social interaction, and politics. Successful graduates will be well acquainted with linguistic structure, language diversity, and language typology, as well as the anthropological and social consequences of the nature of human language.

Learning Outcomes

The Linguistics and Anthropology major has the following learning outcomes:

- Ability to apply critical thinking skills through linguistic data analysis in phonetics, phonology, syntax, and at least one other subfield
- Understanding of advanced theoretical concepts and/or analytical techniques in at least one subfield
- Ability to write technical material in linguistics, including language description and theory-based analysis
- Ability to access scholarly literature on language structure and use it in research

Preparation for the Major

Required: Linguistics 20, completion of the equivalent of the sixth term of one foreign language and the third term of a second foreign language (at least three terms must be in a language other than those in the Romance, Slavic, and Germanic families). Anthropology 4 is strongly recommended, when offered.

Transfer Students

Transfer applicants to the Linguistics and Anthropology major with 90 or more units must complete as many of the following introductory courses as possible prior to admission to UCLA: one introduction to linguistics course and two years of one foreign language (at least one year must be in a language other than those in the Romance, Slavic, or Germanic families). One cultural and communication course is strongly recommended.

Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

The Major

Required: Eleven upper-division courses as follows: Linguistics 102 (or 103), 119A (or 120A), 120B or 127, M146; two courses from 114, 120C, 144, 160, 161, 170; one course from Anthropology 151 or Sociology M124A; and three upper-division electives from the Anthropology 130 series (one course only), the 150 series (one course only), the 160 series (one course only), the 180 series (one course only), and the 190 series (one course only).
Linguistics and Computer Science BA

The major combines the basic courses of the general linguistics program with that of computer science, accommodating students who want professional preparation in computer science but do not necessarily have a strong interest in computer systems hardware. The goal of linguistics is the enrichment of knowledge about the nature, grammar, and history of human language. Linguistics is a theoretical discipline, akin to philosophy, anthropology, and cognitive psychology.

Learning Outcomes

The Linguistics and Computer Science major has the following learning outcomes:

- Ability to apply critical thinking skills through linguistic data analysis in phonetics, phonology, syntax, and at least one other subfield
- Understanding of advanced theoretical concepts and/or analytical techniques in at least one subfield
- Ability to write technical material in linguistics, including language description and theory-based analysis
- Ability to access scholarly literature on language structure and use it in research

Preparation for the Major

Required: Linguistics 20, Computer Science 31, 32, 33, 35L, Mathematics 31A or 31AL, 31B, 61, 70, completion of the third term in one foreign language.

Transfer Students

Transfer applicants to the Linguistics and Computer Science major with 90 or more units must complete as many of the following introductory courses as possible prior to admission to UCLA: one introduction to linguistics course, one critical reading and writing course, one year of English literature survey courses, one symbolic logic course, and two years of one foreign language and one year of a second foreign language.

Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

The Major

Required: Eleven upper-division courses as follows: Linguistics 102 (or 103), 119A (or 120A), 120B, 120C, 165A (or 165B or 165C), 185A, one course selected from 104, 127, 132, 165A, 165B, 165C, 180, 185B; Computer Science 131, 132 or 161, 180, 181.

Linguistics and English BA

The major combines the basic courses of the general linguistics program with that of English. Students are able to study the literatures and cultures of those parts of the world in which English is the primary language, the history and structure of the English language itself, and enrich their knowledge about the nature, grammar, and history of human language at the same time.

Learning Outcomes

The Linguistics and English major has the following learning outcomes:

- Ability to apply critical thinking skills through linguistic data analysis in phonetics, phonology, syntax, and at least one other subfield
- Understanding of advanced theoretical concepts and/or analytical techniques in at least one subfield
- Ability to write technical material in linguistics, including language description and theory-based analysis
- Ability to access scholarly literature on language structure and use it in research

Preparation for the Major

Required: Linguistics 20, English 4W (or 4HW), 10A, 10B, 10C, Philosophy 31, completion of the equivalent of the sixth term of one foreign language and the third term of a second foreign language.

Transfer Students

Transfer applicants to the Linguistics and English major with 90 or more units must complete as many of the following introductory courses as possible prior to admission to UCLA: one introduction to linguistics course, one critical reading and writing course, one year of English literature survey courses, one symbolic logic course, and two years of one foreign language and one year of a second foreign language.

Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

The Major

Required: Twelve upper-division courses as follows: Linguistics 103, 110, 120A, 120B, 165A or 165B (or 200A or 200B with a grade of A in 120A or 120B respectively and consent of instructor), one upper-division elective in linguistics, English 113A, 113B, 120, and three electives from 140A, 140B, 150A, 150B, 151, the 150 series (one course only), the 160 series (one course only), the 170 series (one course only).

Linguistics and French BA

The major combines the basic courses of the general linguistics program with that of French. Students are able to gain practical competence and basic knowledge of French, and enrich their knowledge about the nature, grammar, and history of human language at the same time.

Learning Outcomes

The Linguistics and French major has the following learning outcomes:

- Ability to apply critical thinking skills through linguistic data analysis in phonetics, phonology, syntax, and at least one other subfield
- Understanding of advanced theoretical concepts and/or analytical techniques in at least one subfield
- Ability to write technical material in linguistics, including language description and theory-based analysis

Preparation for the Major

Required: Linguistics 20, French 4W, the 101 series (one course only), the 170 series (one course only), the 200 series (one course only).

Transfer Students

Transfer applicants to the Linguistics and French major with 90 or more units must complete as many of the following introductory courses as possible prior to admission to UCLA: one introduction to linguistics course, one critical reading and writing course, one year of English literature survey courses, one symbolic logic course, and two years of one foreign language and one year of a second foreign language.

Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

The Major

Required: Thirteen upper-division courses as follows: Linguistics 102 (or 103), 110A, 110B, 110C, 120A, 120B, 120C, 165A or 165B (or 200A or 200B with a grade of A in 120A or 120B respectively and consent of instructor), one upper-division elective in linguistics, English 113A, 113B, 120, and three electives from 140A, 140B, 150A, 150B, 151, the 150 series (one course only), the 160 series (one course only), the 170 series (one course only).
• Ability to access scholarly literature on language structure and use it in research

Preparation for the Major
Required: Linguistics 20, French 1, 2, 3, 4, 5, 6, 12, completion of the equivalent of the third term of a second foreign language.

Transfer Students
Transfer applicants to the Linguistics and French major with 90 or more units must complete as many of the following introductory courses as possible prior to admission to UCLA: two years of French, one introduction to linguistics course, one French literature course, and one year of a second foreign language.

Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

The Major
Required: Twelve upper-division courses as follows: Linguistics 103, 110, 120A, 120B, 165A or 165B (or 200A or 200B with a grade of A in 120A or 120B respectively and consent of instructor), two upper-division electives in linguistics, Italian 102A, 180, and three upper-division electives in Italian.

Linguistics and Philosophy
BA
The major combines the basic courses of the general linguistics program with that of philosophy, for students who are reflective about their beliefs or who wish to become so. Students enrich their knowledge about the nature, grammar, and history of human language, and are given the opportunity to ponder the foundations of almost any other subject to which they are exposed—whether history, religion, government, law, or science.

Learning Outcomes
The Linguistics and Philosophy major has the following learning outcomes:
• Ability to apply critical thinking skills through linguistic data analysis in phonetics, phonology, syntax, and at least one other subfield
• Understanding of advanced theoretical concepts and/or analytical techniques in at least one subfield
• Ability to write technical material in linguistics, including language description and theory-based analysis
• Ability to access scholarly literature on language structure and use it in research

Preparation for the Major
Required: Linguistics 20, Philosophy 31, and two courses from 1, 6, 7, 21, completion of the equivalent of the sixth term of one foreign language and the third term of a second foreign language.

Transfer Students
Transfer applicants to the Linguistics and Philosophy major with 90 or more units must complete as many of the following introductory courses as possible prior to admission to UCLA: one introduction to linguistics course, one introduction to psychology course, one introduction to psychology course, one introduction to cognitive science course, one psychological statistics course, one psychology research methods course, and two years of one foreign language and one year of a second foreign language. One introduction to programming course is strongly recommended.

Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

The Major
Required: Eleven upper-division courses as follows: Linguistics 103, 110, 120A, 120B, 165A (or 165B), one upper-division elective in linguistics, French 100, 101, 105, 107, and one elective upper-division French course beyond the sixth term.

Linguistics and Italian BA
The major combines the basic courses of the general linguistics program with that of Italian. Students are exposed to Italian civilization, language and literature as well as enrich their knowledge about the nature, grammar, and history of human language at the same time.

Learning Outcomes
The Linguistics and Italian major has the following learning outcomes:
• Ability to apply critical thinking skills through linguistic data analysis in phonetics, phonology, syntax, and at least one other subfield
• Understanding of advanced theoretical concepts and/or analytical techniques in at least one subfield
• Ability to write technical material in linguistics, including language description and theory-based analysis
• Ability to access scholarly literature on language structure and use it in research

Preparation for the Major
Required: Linguistics 20, Italian 1, 2, 3, 4, 5, 6, Latin 1, 2, 3, one cultural anthropology course.

Transfer Students
Transfer applicants to the Linguistics and Italian major with 90 or more units must complete as many of the following introductory courses as possible prior to admission to UCLA: two years of Italian, one year of Latin, one introduction to linguistics course, and one cultural anthropology course.

Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

The Major
Required: Twelve upper-division courses as follows: Linguistics 102 (or 103), 119A (or 120A), 120B, 120C, 165B (or 165C or 180), one upper-division elective in linguistics; six upper-division courses in philosophy, including at least five from Philosophy 124 through 135, 170, 172, 174, 180, 181, 184, of which at least two must be from C127A, C127B, 172.

Linguistics and Psychology
BA
The major combines the basic courses of the general linguistics program with that of psychology. Students are able to study and explain human and animal behavior, both normal and abnormal, as well as enrich their knowledge about the nature, grammar, and history of human language.

Learning Outcomes
The Linguistics and Psychology major has the following learning outcomes:
• Ability to apply critical thinking skills through linguistic data analysis in phonetics, phonology, syntax, and at least one other subfield
• Understanding of advanced theoretical concepts and/or analytical techniques in at least one subfield
• Ability to write technical material in linguistics, including language description and theory-based analysis
• Ability to access scholarly literature on language structure and use it in research

Preparation for the Major
Required: Linguistics 20, Psychology 10, 85, 100A, 100B, completion of the equivalent of the sixth term of one foreign language and the third term of a second foreign language. Program in Computing 10A is strongly recommended.

Transfer Students
Transfer applicants to the Linguistics and Psychology major with 90 or more units must complete as many of the following introductory courses as possible prior to admission to UCLA: one introduction to linguistics course, one introduction to psychology course, one introduction to cognitive science course, one psychological statistics course, one psychology research methods course, and two years of one foreign language and one year of a second foreign language. One introduction to programming course is strongly recommended.

Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

The Major
Required: Ten upper-division courses (six in linguistics and five in psychology) as follows: Linguistics 102 (or 103), 119A (or 120A), 120B, two of 130, 132, and C135, and one upper-division elective in linguistics (multiple-listed courses may not be applied). Linguistics 165A, 165B, and whichever of 130, 132, and C135 has not been used to satisfy the requirement, are strongly recommended. Also required are Psychology 120A, 121, 133B, and two electives to be selected from 115, 116, M117C, 118, M119L, 124A, 124C, 130, 133C, 133E, 133F, 186A, 186B.

Linguistics and Scandinavian Languages
BA
The major combines the basic courses of the general linguistics program with that of Scandinavian
languages. Students are able to learn about Scandi-
navia through the study of its languages and litera-
tures, as well as enrich their knowledge about the
nature, grammar, and history of human language.

Learning Outcomes
The Linguistics and Scandinavian Languages major has the following learning outcomes:

• Ability to apply critical thinking skills through lin-
guistic data analysis in phonetics, phonology, syntax, and at least one other subfield
• Understanding of advanced theoretical con-
cepts and/or analytical techniques in at least one subfield
• Ability to write technical material in linguistics, including language description and theory-
based analysis
• Ability to access scholarly literature on language
structure and use it in research

Preparation for the Major
Required: Linguistics 20, Scandinavian I, 2, and 3, or 11, 12, and 13, or 21, 22, and 23, completion of the
equivalent of the third term of a second foreign
language.

Transfer Students
Transfer applicants to the Linguistics and Scandinavian Languages major with 90 or more units must complete as many of the following introductory courses as possible prior to admission to UCLA: two years of either Swedish, Norwegian, or Danish, one introduction to linguistics course, and one year of a second foreign language.

Transfer Students
Transfer applicants to the Linguistics and Spanish major with 90 or more units must complete as many of the following introductory courses as possible prior to admission to UCLA: two years of Spanish, one Spanish composition course, one Spanish civil-
ization course, one Spanish American civilization course, one introduction to linguistics course, and one year of a second foreign language.

Refer to the UCLA transfer admission guide for
up-to-date information regarding transfer selection for admission.

The Major
Required: Eleven upper-division courses as follows: Linguistics 103, 110, 120A, 120B, 165A or 165B (or 200A or 200B with a grade of A in 120A or 120B respectively and consent of instructor), one upper-di-
vision elective in linguistics, three courses from
Scandinavian 105A, 105B, and 105C, or 106A, 106B,
and 106C, or 107A, 107B, and 107C, 197 (in a topic
related to Scandinavian linguistics, under the
direction of a Scandinavian or Linguistics faculty
member), and two upper-division electives in
Scandinavian.

Linguistics and Spanish BA
The major combines the basic courses of the gen-
eral linguistics program with that of Spanish. Stu-
dents are able to study one of the languages, litera-
tures, and cultures of the Hispanic heritage, as well as enrich their knowledge about the nature, gram-
mar, and history of human language.

Learning Outcomes
The Linguistics and Spanish major has the following learning outcomes:

• Ability to apply critical thinking skills through lin-
guistic data analysis in phonetics, phonology, syntax, and at least one other subfield
• Understanding of advanced theoretical con-
cepts and/or analytical techniques in at least one subfield
• Ability to write technical material in linguistics, including language description and theory-
based analysis
• Ability to access scholarly literature on language
structure and use it in research

Preparation for the Major
Required: Linguistics 20, Spanish I, 2, 3, 4, 5, 25 (or
27), 42, 44, completion of the equivalent of the third
term of a second foreign language.

Transfer Students
Transfer applicants to the Linguistics and Spanish major with 90 or more units must complete as many of the following introductory courses as possible prior to admission to UCLA: two years of Spanish, one Spanish composition course, one Spanish civil-
ization course, one Spanish American civilization course, one introduction to linguistics course, and one year of a second foreign language.

Refer to the UCLA transfer admission guide for
up-to-date information regarding transfer selection for admission.

The Major
Required: Twelve upper-division courses as follows: Linguistics 103, 110, 120A, 120B, 165A (or 165B),
one additional upper-division course in linguistics, Spanish 100A, 100B, 119, 160, and two additional up-
per-division Spanish courses.

Honors Program
Departmental honors are awarded at graduation to those students who have a grade-point average of 3.6 or better in their junior and senior years and who have received a grade of A in Linguistics 198A and 198B or in 199. Qualified students may be proposed by any member of the faculty to the faculty as a whole for the award of honor thesis on the basis of a piece of research in linguistics completed at
UCLA.

Computing Specialization
Students in any of the departmental majors (except Linguistics and Computer Science) may select a specializa-
tion in Computing by (1) satisfying all the require-
ments for a bachelor’s degree in the speci-
fied major and (2) completing Program in Comput-
ing 10A and 10B and 10C (or Computer Science 31 and 32), Linguistics 185A, Mathematics 61, and one course selected from Linguistics 104, 127, 132, 165A, 165B, 165C, 180, 185B. Students graduate with a bach-
elor’s degree in their major and a specialization in Computing.

Linguistics Minor
The Linguistics minor is designed for students for whom training in linguistic analysis could be an en-
hancement to their major programs, and for stu-
dents who are interested in language(s) but do not have time in their undergraduate programs to pur-
sue multilingual language sequences. In addition, the minor provides students with a way to design

Graduate Study
Official, specific degree requirements are detailed in program requirement guidelines for UCLAs graduate degrees, available at the Graduate Division website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Graduate Degrees
The Department of Linguistics offers Master of Arts (MA), Candidate in Philosophy (CPhil), and Doctor of Philosophy (PhD) degrees in Linguistics.

American Sign Language

Lower-Division Courses
1. Elementary American Sign Language. (5) Lect-
ure, five hours. Introduction to fundamentals of Amer-
ican sign language. P/NP or letter grading.
2. Elementary American Sign Language. (6) Lect-
ure, five hours. Enforced requisite: course 1. Introduc-
tion to fundamentals of American sign language. P/NP or letter grading.
3. Elementary American Sign Language. (8) Lect-
ure, five hours. Enforced requisite: course 2. Introduc-
tion to fundamentals of American sign language. P/NP or letter grading.
4. Intermediate American Sign Language. (5) Lect-
ure, five hours. Enforced requisite: course 3. Interme-
diate American sign language. P/NP or letter grading.
5. Intermediate American Sign Language. (5) Lect-
ure, five hours. Enforced requisite: course 4. Interme-
diate American sign language. P/NP or letter grading.
6. Intermediate American Sign Language. (5) Lect-
ure, five hours. Enforced requisite: course 5. Interme-
diate American sign language. P/NP or letter grading.
7. Intermediate American Sign Language. (15) Lecture, 20 hours. Open to students with

intensive elemen-
tary instruction in American sign language equivalent to courses 1, 2, and 3. Offered in summer only. P/NP or letter grading.

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

89. Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to lower-division lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

89HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to lower-division lecture course. Individually-study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

90. Tutorial, three hours. Directed individual instruction in American sign language equivalent to courses 1, 2, and 3. Offered in summer only. P/NP or letter grading.

Linguistics

Lower-Division Courses

1. Introduction to Study of Language. (5) Lecture, four hours; discussion, one hour. Summary for general undergraduates of what is known about human language; biological basis of language, scientific study of language and human cognition; uniqueness of human language, its structure, universality, its diversity; language in social and cultural setting; language in relation to other aspects of human inquiry and knowledge. P/NP or letter grading.

2. Language in U.S. (5) Lecture, four hours; discussion, one hour (when scheduled). Survey of languages of U.S. (American Indian languages, oldest immigrant languages, social and national varieties of English, and newest arrival languages) and social and political aspects of American language use. P/NP or letter grading.


4. Language and Evolution. (5) Formerly numbered 414. (Same as Euro-American Studies M70.) Lecture, four hours; discussion, one hour (when scheduled). Basic concepts and tools of evolutionary theory and linguistics relevant to how organisms with linguistic abilities could evolve, and how particular language families arose. How did language evolve and change so rapidly? P/NP or letter grading.

5. World Languages. (5) Lecture, four hours; discussion, one hour (when scheduled). Introduction to the diversity of world languages and to such core areas of linguistic study as sound production and patternning (phonetics and phonology), word formation (morphology), and sentence formation (syntax). Structural characteristics of world languages and methods of classifying languages and types of language development. Discussion of representative languages with audiovisual illustrations to acquaint students with distinctive features of several key language families. Discussion of such such language features as sounds, vowels, affixed languages, language contact, and language endangerment, together with related sociopolitical issues. P/NP or letter grading.

6. Out of Mouths of Babes. (4) Lecture, six hours. How children acquire language, most complex of human cognitive achievements. Look at amazing linguistic abilities of infants and their first perception and production of speech sounds, then investigation of how children learn words and rules for producing and understanding sentences. Language acquisition in special populations such as children acquiring sign language, deaf children, and people acquiring language beyond critical period. Focus mainly on English, with consideration of other languages. Offered in summer only. P/NP or letter grading.

7. Language and Identity. (5) (Same as Philosophy M72.) Lecture, four hours; discussion, one hour (when scheduled). How do we use language to project our own identity? How do we use it to perceive or shape identity of others? Introduction to speech act theory and various claims that speech act theory can account for the social construction of reality. Expect to achieve substantial enrichment of their vocabulary while learning etymology, semantic change, and abstract rules of English word formation. P/NP or letter grading.

8. Linguistics / 535

M115. Enforcing Normalcy: Deaf and Disability Studies. (4) (Same as Disability Studies M115.) Lecture, three hours. Exploration of historical, medical, social, political, philosophical, and cultural influences that have given form to categories of normality and disability, deafness. Building on work of Michel Foucault and critical work in field of disability studies, inquiry into institutions that have enforced standards of normalcy. Analysis of how cultural representations of normalcy and disability have changed from 1800s to present. Primary attention to rise of medical authority and various claims that speech act theory can account for the social construction of reality. Expect to achieve substantial enrichment of their vocabulary while learning etymology, semantic change, and abstract rules of English word formation. P/NP or letter grading.

M120. History of Deaf Communities in America. (4) (Same as History M147E.) Lecture, three hours; discussion, one hour (when scheduled). Designed for journalism, history, and culture of deaf communities in America (circa 1800 to present) by exploring major events impacting deaf people, including development of sign language, deaf education, university programs for deaf students, deaf revolution movements, and role of hearing technology. Historical development of deaf community in America and contributed to the identity of other deaf people. Satisfies Writing II requirement. Letter grading.

121. History of Mass Media and Deaf Community. (4) Lecture, three hours. Historical survey of mass media (print, film, television, and Internet) as sources and interpreters of deafness and deaf people within context of social and cultural history. Examination of historical changes in products of mass media within deaf community and ways of critiquing media sources. P/NP or letter grading.

M7. Language and Gender: Introduction to Gender and Stereotypes. (5) (Formerly numbered Applied Linguistics 40W.) Lecture, four hours; discussion, two hours. Enforced requisite: English Composition 3. Introduces methods and theories of linguistic analysis to understand the role of gender in linguistic systems and the impact of gender stereotypes, roles, and other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

M8. Language and Gender: Introduction to Gender and Stereotypes. (5) (Formerly numbered Applied Linguistics 40W.) Lecture, four hours; discussion, two hours. Enforced requisite: English Composition 3. Introduces methods and theories of linguistic analysis to understand the role of gender in linguistic systems and the impact of gender stereotypes, roles, and other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

89HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to lower-division lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

89HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to lower-division lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

90. Tutorial, three hours. Directed individual instruction in American sign language equivalent to courses 1, 2, and 3. Offered in summer only. P/NP or letter grading.

90W. Linguistic Humor: Amazing and Abusing with Language. (5) Seminar, five hours. Requisite: English Composition 3. Study of how principles of science of linguistics are applied in analyzing language structure. Data from humor and other amusements, such as secrete languages (Pig Latin and more). Introduction to basics of linguistics analysis, including language sound systems, syntactic analysis, word structure, word meaning, and pragmatics. Focus on nature of language and development of sign language that allows people from all cultural and linguistic backgrounds to adapt language for humorous purposes, albeit shaped by predominant culture as to what counts as funny. Satisfies Writing II requirement. P/NP or letter grading.

M10. Structure of English Words. (5) (Same as English M40.) Lecture, four hours; discussion, one hour. Introduction to structure of English words of classical origin, including most common base forms and rules by which alternate forms are derived. Students may expect to achieve substantial enrichment of their vocabulary while learning etymology, semantic change, and abstract rules of English word formation. P/NP or letter grading.

20. Introduction to Linguistic Analysis. (5) Lecture, four hours; discussion, one hour (when scheduled). Introduction to theory and methods of linguistics; universal vs. properties of human language; phonetic, phonological, morphological, syntactic, and semantic structures and analysis; nature and form of grammar. P/NP or letter grading.

40W. Language Experience: Gender: Introduction to Gender and Stereotypes. (5) (Formerly numbered Applied Linguistics 40W.) Lecture, four hours; discussion, two hours. Enforced requisite: English Composition 3. Introduces methods and theories of linguistic analysis to understand the role of gender in linguistic systems and the impact of gender stereotypes, roles, and other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

89HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to lower-division lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

97. Variable Topics in Linguistics. (1 to 4) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

20. Introduction to Linguistic Analysis. (5) Lecture, four hours; discussion, one hour (when scheduled). Introduction to theory and methods of linguistics; universal vs. properties of human language; phonetic, phonological, morphological, syntactic, and semantic structures and analysis; nature and form of grammar. P/NP or letter grading.

40W. Language Experience: Gender: Introduction to Gender and Stereotypes. (5) (Formerly numbered Applied Linguistics 40W.) Lecture, four hours; discussion, two hours. Enforced requisite: English Composition 3. Introduces methods and theories of linguistic analysis to understand the role of gender in linguistic systems and the impact of gender stereotypes, roles, and other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

89HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to lower-division lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

97. Variable Topics in Linguistics. (1 to 4) Seminar, three hours; fieldwork, two hours. Variable topics offered by departmental faculty members. May be repeated for credit with topic change. P/NP or letter grading.

99. Student Research Program. (1 to 2) Tutorial (supervised research or other scholarly work), three hours per week per unit. Entry-level research for lower-division students under guidance of faculty mentor. Stu-
upper-division courses

102. introduction to applied phonetics. (s) lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: course 20 with grade of b- or better. Not open for credit to students with credit for course 103. Basics of articulation and acoustics of phonetic categories used in world’s languages, including English in comparison with other languages. Practice in speech-sound perception and transcription using International Phonetic Alphabet (IPA). Applications to language learning/teaching and other fields. P/NP or letter grading.

103. introduction to general phonetics. (s) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: course 20 with grade of b- or better. Not open for credit to students with credit for course 102. Phonetics of variety of languages and phonetic phenomena that occur in languages of world. Extensive practice in perception and production of speech sounds. P/NP or letter grading.

104. experimental phonetics. (s) Lecture, four hours; discussion, one hour (when scheduled). Requisite: course 102 or 103. Survey of principal techniques of experimental phonetics. Use of laboratory equipment for purposes of measuring phonetic phenomena. P/NP or letter grading.

105. morphology. (s) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: course 20. In linguistics, morphology is study of word structure. Morphological interchangeability of forms such as how words and their component parts (roots, prefixes, suffixes, vowel changes) is classified crosslinguistically? how do speakers store, produce, and process words with affixes, subtypes (e.g., nouns, verbs, or adjectives)? how do speakers know how to produce correct forms even when they have not previously heard them and do speakers know that particular words are well-formed or ill-formed? is there principled distinction in traditional division between inflection and derivaton? how can we best account for variation in forms that are same (e.g., root in keep/kept even though vowels are different)? can we form and crosslinguistic generalizations about word structure? P/NP or letter grading.

110. introduction to historical linguistics. (s) Lecture, four hours; discussion, one hour (when scheduled). Requisites: courses 20, 102 or 103, 119A or 120A. Methods and theories appropriate to historical study of language, such as comparative method and method of internal reconstruction. Sound change, grammatical change, semantic change. P/NP or letter grading.

110G. introduction to historical linguistics for graduate students. (2) Lecture, four hours. Limited to and designed for entering linguistics graduate students to help remedy entrance deficiencies in historical linguistics. Basic historical linguistics: methods and theories appropriate to historical study of language, such as comparative methods and method of internal reconstruction. Sound change, grammatical change, semantic change. S/U grading.

110T. intonuation. (4) Lecture, two hours; laboratory, two hours. Requisites: courses 20, 102 or 103, one course from 119A, 119B, 120A, or 120B. Recommended: course 104 or 204A. Survey of intonational theory for English and other languages, with particular emphasis on phonological models of intonation. Laboratory equipment used for recording and analyzing intonation, and students learn to transcribe intonational elements. Letter grading.

114. American indigenous linguistics. (s) Lecture, four hours; laboratory, one hour (when scheduled). Strongly recommended preparation: course 20. Survey of genetic, areal, and typological classifications of American indigenous languages; writing systems for American indigenous languages; American indigenous languages in social and historical context. One or more languages may be investigated in detail. P/NP or letter grading.

115. linguistics and speech pathology. (2 or 4) Lecture, four hours; discussion, one hour (when scheduled). Requisite: course 102 or 103. Introduction to field of speech pathology. Topics include biological foundations of speech, language, and hearing; and disorders of speech, voice, and hearing, affecting children and adults. In-class presentation and final term paper required if taken for 4 units. P/NP or letter grading.

116. introduction to japanese linguistics. (4) (Same as Japanese 142D.) Lecture, three hours; discussion, one hour. Enforced requisite: Japanese 3 or 8 or Japanese placement test. Introduction to Japanese grammar, discourse analysis, and problem solving in phonology, syntax, semantics, and discourse pragmatics. Letter grading.

119A. applied phonology. (s) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: course 102. Application of knowledge to credit with student for course 120A. Sound structures and sound patterns in world’s languages. Rules, rule ordering, features, syllable, and higher structure. Comparison of sound patterns of different languages. Tools of phonology as applicable to other fields. P/NP or letter grading.

120A. phonology I. (s) Lecture, four hours; discussion, one hour (when scheduled). Requisites: courses 20, 103. Introduction to phonological theory and analysis. Rules, representations, underlying forms, derivations. Justification of phonological analyses. Emphasis on practical skills with problem sets. P/NP or letter grading.

120B. syntax I. (s) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: course 20 with grade of b- or better. Course 120A is not requisite to 120B. Descriptive analysis of morphological and syntactic structures in natural languages; emphasis on insight into structure of such languages rather than linguistics formalization. P/NP or letter grading.

120C. semantics I. (s) Lecture, four hours; discussion, one hour (when scheduled). Requisite: course 119B or 120B. Survey of most important theoretical and descriptive claims about nature of meaning. P/NP or letter grading.

127. syntactic typology and universals. (s) Lecture, four hours; discussion, one hour (when scheduled). Requisite: course 20. Study of essential similarities and differences among languages in grammatical devices they use to signal the following kinds of concepts: relations between nouns and verbs (case and word order), negation, comparison, existence/localization, causation, interrogating, reflexivization, relativization, attribution (adjectives), tense and aspect, and backgrounding (subordination). Data from a range of languages presented and analyzed. P/NP or letter grading.

C128A-C128B. Romance syntax: French. (4-4) Lecture, four hours; preparation: some knowledge of French. Enforced requisite: course 128B. Course C128A is enforced requisite to C128B. Aspects of structure of French language, with emphasis on properties of construction not found in English. Concurrently scheduled with courses C228A-C228B. P/NP or letter grading.

130. language development. (s) Lecture, four hours; discussion, one hour (when scheduled). Requisites: courses 20, 119A or 120A, 119B or 120B. Survey of research and theoretical perspectives in language development in children. Discussion and examination of child language data from English and other languages. Emphasis on cognitive bases of language development. Topics include infant speech perception and production, development of phonology, morphology, syntax, and word meaning. P/NP or letter grading.

132. language processing. (s) Lecture, four hours; laboratory, one hour (when scheduled). Requisites: courses 20, 119A or 120A, 119B or 120B. Central issues in language comprehension and production, with emphasis on how theories in linguistics inform processing models. Topics include word understanding (with emphasis on spoken language), parsing, anaphora and inferring, speech error models of sentence production, and computation of syntactic structure during production. P/NP or letter grading.

135. Neurolinguistics. (s) Lecture, four hours; discussion, one hour (when scheduled). Requisites: courses 20, 119A or 120A, 119B or 120B. Examination of relationship between brain, language, and linguistic theory, with evidence presented from atypical language development and language disorders in the mature brain. Topics include methodologies to investigate normal and atypical hemispheric specialization for language and children and adults with acquired neurocognitive disorder. Concurrently scheduled with course C235. P/NP or letter grading.

140. bilingualism and second language acquisition. (5) Lecture, four hours; discussion, one hour (when scheduled). Requisite: course 120A or 120B. Introduction to study of childhood bilingualism and adult and child second language (L2) acquisition, with focus on understanding nature of L2 grammar and grammatical processes underlying L2/ bilingual acquisition. Discussion of neurolinguistic and social aspects of bilingualism. Concurrently scheduled with course C244. P/NP or letter grading.

141. current methods of language teaching. (s) (Same as English Composition M411.) Lecture, four hours; discussion, one hour. Enforced requisite: course 20. Survey of theory and practice in teaching second languages, including (1) past and present methods related to teaching second languages, (2) current theory and practice underlying skills-based instruction and integrated approaches, and (3) factors that affect second language acquisition and learning. Development of knowledge base for design, development, implementation, and evaluation of second language instruction programs. P/NP or letter grading.

144. fundamentals of translation and interpreting. (s) Lecture, four hours; discussion, one hour. Recommended preparation: knowledge of English and at least one other language. Enforced requisite: course 20. Examination of salient lexical, structural, cultural, and social aspects of translating and interpreting between two languages or dialects. Survey of development of translation theories and rise of community interpreting and critical role of language brokering. P/NP or letter grading.

146. language in culture. (s) (Same as Anthropology M150.) Lecture, three hours; discussion, one hour; fieldwork, two hours. Requisite: course 20 or Anthropology 4. Study of language as aspect of culture; relation of habitual thought and behavior to language; and language and classification of experience. Holistic approach to study of language, with emphasis on relationship between language and fields of biological, cultural, and social anthropology, as well as archeology. P/NP or letter grading.

150. introduction to indo-european linguistics. (8) (Same as Indo-European Studies M150.) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: course 1 or 20. Indo-european languages (ancient and modern), including their relationship, character, development, and social aspects of translating and interpreting between two languages or dialects. Survey of development of translation theories and rise of community interpreting and critical role of language brokering. P/NP or letter grading.

156. indo-european languages. (s) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: course 1 or 20. Indo-European languages (ancient and modern), including their relationship, character, development, and social aspects of translating and interpreting between two languages or dialects. Survey of development of translation theories and rise of community interpreting and critical role of language brokering. P/NP or letter grading.

160. field methods. (s) Lecture, four hours; discussion, one hour (when scheduled). Requisites: courses 20 or 109 or 119A or 120A. Design of fieldwork and implementation of primary data using linguistic field methods, organizing data into documents (annotated texts, dictionaries, multimedia presentations, technical articles), describing and analyzing languages and language families, and target languages, linguistics, scholars outside linguistics, general public), presentation and storage of documents (paper publication, online publication, electronic and print archiving), and oral and written documents, and languages, and organizations and initiatives for documenting endangered languages. Presentations focus
on case studies. Student projects in assembling primary data and creating annotated texts with commentary. P/NP or letter grading.

165A. Phonology II. (5) Lecture, four hours; discussion, one hour (when scheduled). Requisite: course 120A. To be taken in term following completion of courses 120A and 20. Further study in phonology, with focus on historical phonology, on principles of language change, and on phonological theory. P/NP or letter grading.

165B. Syntax II. (5) Lecture, four hours; discussion, one hour (when scheduled). Requisite: course 120B. To be taken in term following completion of course 120B. Further study in syntactic theory, with focus on unification grammar and minimalist syntax. P/NP or letter grading.

165C. Semantics II. (5) Lecture, four hours; discussion, one hour (when scheduled). Requisite: course 120C. Recommended for students who plan to do graduate work in linguistics. Further study in relevant logics, relations, and mathematical tools, with focus on semantics, the theory of categorial grammars, and transformational grammar. P/NP or letter grading.

170. Language and Society: Introduction to Sociolinguistics. (4) Lecture, four hours; discussion, one hour (when scheduled). Requisite: course 110, 120A, 120B. Introduction to sociolinguistics, with focus on sociolinguistic questions, methodological issues, and sociolinguistic theory. P/NP or letter grading.

175. Linguistics, Graduate Lecture. Four hours. Requisites: courses 110, 120A, 120B. Principles of linguistic change as exemplified through detailed study of history of English pronunciation, lexicon, and syntax. P/NP or letter grading.


M177A. Lecture of Korean and Hangul. (4) (Same as Korean CM120.) Lecture, three hours; discussion, one hour. Recommended preparation: two years of Korean, or one year of Korean and some knowledge of linguistics. Development of parallels between Korean and modern English. Letter grading.


185A. Computational Linguistics I. (5) Lecture, four hours; laboratory, one hour. Requisites: courses 120B, Program for Computer Science 32. Recommended: course 165B or 200B. Overview of formal computational ideas underlying kinds of grammars used in theoretical linguistics and psycholinguistics, and some connections to applications in natural language processing. Topics include recursion, relationship between probabilities and grammars, and parsing algorithms. P/NP or letter grading.

185B. Computational Linguistics II. (5) Lecture, four hours; discussion, one hour (when scheduled). Requisite: course 185A. Further study in computational linguistics, with focus on computational analysis of current tools and frameworks used in linguistic theory and their cognitive interpretations. P/NP or letter grading.

188A. Individual Studies for USIE Facilitators. (1) Tutorial, to be arranged. Enforced requisite: Honors College 101E. Limited to junior/senior USIE facilitators. Individually structured meetings with faculty mentor to discuss selected USIE seminar topic, conduct preparatory research, and begin preparation of syllabus. Individual contract with faculty mentor required. May be repeated for credit. Letter grading.


188BC. Individual Studies for USIE Facilitators. (2) Tutorial, to be arranged. Enforced requisite: course 188B. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor to study course syllabus. Individual contract with faculty mentor required. May not be repeated. Letter grading.

189. Advanced Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to undergraduate lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

189HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to upper-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Lecture grading.

191A. Variable Topics Research Seminars: Linguistics. (4) Seminar, three hours; discussion, one hour (when scheduled). Requisite: course 1 or 20. Seminar in selected topics in linguistics. Topics may be selected from current research in phonology, morphology, syntax, and semantics. Letter grading.

191B. Variable Topics Research Seminars: Linguistics. (2 or 4) Seminar, three hours; discussion, one hour; laboratory, one hour. Variable topics in phonetics, morphology, syntactic structure, and semantics. Topics may be selected from current research in phonology, morphology, syntax, and semantics. Letter grading.

191A-192B. Undergraduate Practicum in Linguistics. (4-2) Seminar, three hours (course 192A) and six hours (course 192B). Limited to juniors/seniors. Training and supervised practicum for advanced undergraduate students to assist in linguistics laboratories. Limited to 15 students. Special topics course; subject to approval of instructor. Letter grading.

192A-192B. Undergraduate Practicum in Linguistics. (4-2) Seminar, three hours (course 192A) and six hours (course 192B). Limited to juniors/seniors. Training and supervised practicum for advanced undergraduate students to assist in linguistics laboratories. Limited to 15 students. Special topics course; subject to approval of instructor. Letter grading.

192. Second course in two-course survey of current research in phonological theory. Topics include autosegmentalism (tone, tiers, segment structure), featural representation, and phonological theory. Topics include underspecification, prosodic morphology, lexical integration, metrical theory, syllable structure, and segment structure. P/NP or letter grading.

195. Community or Corporate Internships in Linguistics. (2 to 4) Tutorial, to be arranged. Preparation: 3.0 grade-point average in major. Limited to junior/senior USIE major or internship in supervised setting in community agency or business related to linguistics and/or applied linguistics. Students meet on regular basis with instructor and provide periodic reports of their experience. Additional supervision and evaluation to be provided by internship site supervisor. Individual contract with supervising faculty member required. P/NP or letter grading.

197. Individual Studies in Linguistics. (2 to 4) Tutorial, to be arranged. Preparation: 3.0 grade-point average. Recommended for students who plan to do graduate work in linguistics. Further study in relevant logics, relations, and mathematical tools, with focus on semantics, the theory of categorial grammars, and transformational grammar. P/NP or letter grading.

198A. Honors Research in Linguistics I. (4) Tutorial, to be arranged. Preparation: 3.5 grade-point average. Recommended for students who plan to do graduate work in linguistics. Further study in relevant logics, relations, and mathematical tools, with focus on semantics, the theory of categorial grammars, and transformational grammar. Limited to students in College Honors Program. Preparation: graduate linguistics student or grade of A in course 165A or 165B (or 200B). Recommended: completion of both courses 165A and 165B (or 200A and 200B) before or during term in which course 198A is taken. Limited to juniors/seniors. Development of comprehensive research project on linguistic topic selected by student under direct supervision of faculty member. Consult professor in charge to enroll. May be repeated for credit. Individual contract required. Progress grading (credit to be given only on completion of course 198B).

198B. Honors Research in Linguistics II. (2) Tutorial to be arranged. Preparation: course 198A. Limited to juniors/seniors. Completion of honors thesis or comprehensive research project begun in course 198A under direct supervision of faculty member. Consult professor in charge to enroll. May be repeated for credit. Individual contract required. Letter grading.

199. Directed Research or Senior Project in Linguistics. (4) Tutorial, to be arranged. Limited to senior Linguistics majors. Supervised individual research or investigation of linguistic topic selected by student under guidance of faculty mentor. Culminating paper required. Consult professor in charge to enroll. May be repeated for credit. Individual contract required. P/NP or letter grading.

Graduate Courses

200A. Phonological Theory I. (4) Lecture, four hours. Preparation: graduate linguistics student or grade of A in course 120A or equivalent course in phonology. Courses 200A and 201A form two-course survey of current research in phonological theory. Interaction of phonology with morphology and syntax, syllable structure, stress, S/U or letter grading.

200B. Syntactic Theory I. (4) Lecture, four hours. Preparation: graduate linguistics student or grade of A in course 120B or equivalent course in syntax. In-depth introduction to selected topics in theory of constituent structure and syntax of predicates, arguments, and grammatical relations. Topics include lexical and representational theory, phrase structure, thematic roles, the lexicon, grammatical function-changing rules, head-complement relations, S/U or letter grading.

200C. Semantic Theory I. (4) Lecture, four hours. Preparation: graduate linguistics student or grade of A in course 120B or equivalent course in syntax. Further study in formal semantic interpretation, syntax and LF, tense, ellipsis, and focus. Letter grading.

201A. Phonological Theory II. (4) Lecture, four hours. Requisite: course 200A. Continuation of course 200A. Second course in two-course survey of current research in phonological theory. Topics include autosegmentalism (tone, tiers, segment structure), feature theory, underspecification, prosodic morphology, S/U or letter grading.
201B. Syntactic Theory II. (4) Lecture, four hours. Requisite: course 200B. In-depth introduction to syntax, covering several current syntactic theories, compared with one or more theoretical systems, including generative grammar, dependency grammar, minimalist grammar, and the minimalist program. S/U or letter grading.

201C. Computational Semantics. (4) Lecture, four hours. Preparation: basic knowledge of semantics. Requisite: course 185A or 209A. Study of algorithms to compute and reason with meanings of sentences and terms. Emphasis on presupposition projection, and tracking time, objects, and space to be covered. S/U or letter grading.

210A. Field Methods I. (4) Lecture, four hours. Preparation: grade of B or better in course 103 or in examination on practical phonetics. Requisites: courses 200A, 200B. Analysis of a language unknown to members of class from data elicited from a native speaker of the language. Term papers to be relatively full descriptive sketches of the language. May be repeated for credit with topic change. S/U or letter grading.

210B. Field Methods II. (4) Lecture, four hours. Requisite: course 210A in preceding term. Because different languages are investigated in different years, courses in this group may repeat in subsequent years with different students. S/U or letter grading.

211. Intonation. (4) Lecture, two hours; laboratory, two hours. Requisite: course 120A or 120B. Survey of intonational theory for English and other languages, with particular emphasis on phonological models of intonation. Laboratory equipment used for recording and analyzing intonation, and students learn to transcribe intonational elements. Letter grading.

212. Learnability Theory. (4) Lecture, four hours. Survey of some of the most significant results on capabilities of learners, given precise assumptions about their memory, time, and computational power, and precise assumptions about information provided by environment. S/U or letter grading.


215. Syntactic Theory III. (4) Lecture, four hours. Requisite: course 200B. Selected topics on syntactic theories of anaphora and quantification from the following areas: typology of binding categories (pro- nouns, anaphors, etc.); theory of locality conditions in syntactic theory; parametric quanti- fier movement; existential quantification and unselective binding; strong and weak crossover; superiority; scope interactions; complex quantifier structures. S/U or letter grading.

217. Experimental Phonology. (4) Lecture, four hours. Requisite: course 200A. Survey of experimental work that bears on claims about speakers’ knowledge of phonology, including research on perception and phonology, and universal markedness relations. Letter grading.

218. Mathematical Structures in Language II. (4) Lecture, four hours. In-depth study of generalized quantifier theory; selected topics from distinctive feature theory, formal syntax, partial orders and lattices, formal language theory, variable binding operators. May be repeated for credit with consent of instructor. S/U or letter grading.

219. Phonological Theory III. (4) Lecture, four hours. Requisite: course 210A. Current research and issues in phonological theory. Topics include structure of phonological representations, relations between rep- resentations, architecture of grammar, and explanations for phonological properties. S/U or letter grading.

220. Linguistic Areas. (4) Requisites: courses 120A, and 120B or 127. Recommended: courses 165A or 200A, 165B or 200B. Analysis and classification of languages spoken in a particular area (e.g., Africa, the Balkans, South Asia, Southeast Asia, Australia, Abo- riginal North America, Aboriginal South America, Far East, etc.). May be repeated for credit with topic change.

222. Semantic Theory III. (2 or 4) Lecture, four hours. Requisites: courses 200C, 201C. Introduction to semantics. Topics include formal systems, classical quantifiers, logical operators, and semantic representations. S/U or letter grading.

224. Syntax and Semantics. (4) Lecture, four hours; discussion, one hour. Requisite: course 120A. Overview of formal systems of grammar and their relationship to formal language theory. S/U or letter grading.

229. Philosophy of Science. (4) Lecture, four hours. Requisite: course 120A or 120B. Survey of philosophical issues and debates in the philosophy of science, focusing on current research. Topics include scientific explanation, laws and theories, theories of objectivity, and the role of science in society. S/U or letter grading.
M238. Analyzing Historical Texts. (4) (Same as History M226C.) Seminar, four hours. Designed for graduate students. Analysis of linguistic structure and ethnographic context. Topics include paleographic technique and text analysis software. May be repeated for credit. S/U grading.

239. Research Design and Statistical Methods. (2 or 4) Lecture, four hours. Topics include identifying and defining research topics, selecting appropriate research methods, designing experiments, recording, analyzing, and interpreting data. Credit/no credit grading.

244. Bilingualism and Second Language Acquisition. (3) Lecture, four hours; discussion, one hour (when scheduled). Requisites: courses 119 A or 120 A, 119B or 120B. Introduction to study of childhood bilingualism and adult second language acquisition with focus on understanding nature of grammatical processes underlying L2 acquisition. Discussion of neurolinguistic and social aspects of bilingualism. Concurrently scheduled with course C140. Graduate students expected to read more advanced literature, do in-class presentations, and submit graduate-level term paper. S/U or letter grading.

251A. Topics in Phonetics and Phonology. (Seminar, four hours; discussion, one hour (when scheduled). Requisites: courses 119 A or 120 A, 119B or 120B. May be repeated for credit. Letter grading.

251B. Topics in Phonetics and Phonology. (Seminar, four hours.) Requisites: course 200 A. Courses 200 A, 201 C, 214, 215, or 216 may be required. Specialized topics in syntax and semantics. May be repeated for credit. S/U grading.

252A. Topics in Syntax and Semantics. (Seminar, three hours.) Requisites: courses 200 A or 200 B. Course 201 A, 201 B, 201 C, 202, 203, 204 A, 205, 208, 209 A, 209 B, 212, 213 A, 213 C, 214, 215, or 216 may be required. Individual monographs on topics such as child language, sociolinguistics, neurolinguistics, computational linguistics, psycholinguistics, etc. Meets with course 254 B. May be repeated for credit. Letter grading.

253A. Topics in Linguistics. (Seminar, four hours.) Requisites: courses 200 A, 200 B. Course 201 A, 201 B, 201 C, 202, 203, 204 A, 205, 208, 209 A, 209 B, 212, 213 A, 213 C, 214, 215, 216, or 218 may be required. Individual monographs on topics such as child language, sociolinguistics, neurolinguistics, computational linguistics, psycholinguistics, etc. May not be applied toward MA degree requirements. Meets with course 254 A. May be repeated for credit. S/U grading.

254A. Phonetic and Psycholinguistics. (2 or 4 each) Seminar, three hours. May be repeated independently for credit. May not be applied toward MA or Ph.D. degree requirements when taken for 2 units. May be repeated for credit. S/U grading.

258-262B-262C. Syntax Seminar. (2 or 4 each) Seminar, three hours. Each course may be taken independently for credit. May not be applied toward MA or Ph.D. degree requirements when taken for 2 units. May be repeated for credit. S/U grading.

263. Seminar: Semantics. (2 or 4) Seminar, two hours. Graduate students and faculty present ongoing work; review recent research in field; collaborate on joint projects. S/U grading.

264A-264B-264C. Seminars: Psycholinguistics/Neurolinguistics. (2 or 4 each) Seminar, three hours. Special topics may include child language, neurolinguistics, psycholinguistics, sociolinguistics, etc. Each course may be taken independently for credit. May not be applied toward MA degree requirements when taken for 2 units. May be repeated for credit. S/U grading.

265A-265B-265C. American Indian Linguistics Seminar. (1 or 4 each) Seminar, two hours; fieldwork, four hours. Presentation of research on American Indian languages. Each course may be taken independently for credit. May not be applied toward MA or Ph.D. degree requirements when taken for 1 unit. May be repeated for credit. S/U grading.


276. Linguistics Colloquium. (No credit) Designed for graduate students. Same as course 275, but taken without credit by students not presenting a colloquium. S/U grading.

275. Teaching Apprentice Practicum. (1 to 4) Seminar, to be arranged. Preparation: apprentice personnel employment as teaching assistant, associate, or fellow. Teaching apprenticeship under active guidance and supervision of regular faculty member responsible for curriculum and instruction at UCLA. May be repeated for credit. S/U grading.


411A-411B. Research Orientation. (2-2) Designed for graduate students. Sequence of lectures by department faculty to acquaint new graduate students with research directions and resources of department and elsewhere on campus. May not be applied toward MA or Ph.D. degree requirements. S/U grading.

422. Practicum: Phonetic Data Analysis. (2) Designed for graduate students. Workshop in examination of phonetic data, such as sound spectrograms, oscillographic records, and computer output. May not be applied toward MA or Ph.D. degree requirements. S/U grading.

444. MA Thesis Preparation Seminar. (4) Seminar, two hours. Regular student presentations of MA thesis topics and progress, with discussion and criticism by other students and faculty. Presentations by faculty and guest speakers on topics relevant to professional development, such as abstract writing and conference presentations, preparing manuscripts for publication, curriculum vitae and personal websites, academic and nonacademic career options, etc. All graduate students in linguistics, including those in other tracks, are encouraged to participate. S/U grading.

495. College Teaching of Linguistics. (Seminar, to be arranged.) Designed for graduate students. Required of all new teaching assistants. Seminars, workshops, and apprentice teaching. Topics include curriculum development, various teaching strategies and their effects, teaching evaluation, and other topics on college teaching. Students receive unit credit toward full-time equivalence but not toward any degree requirements. S/U grading.

501. Cooperative Program. (2 to 8) Preparation: consent of UCLA graduate adviser and graduate dean, and host campus instructor, department chair, and graduate dean. Used to record enrollment of UCLA students in courses taken under cooperative arrangements with USC. S/U grading.

598. Directed Studies. (1 to 8) Preparation: completion of all undergraduate deficiency courses. Directed individual study or research. May be applied toward MA course requirements. May be repeated for credit. S/U grading.

596B. Directed Linguistic Analysis. (1 to 8) Preparation: completion of MA degree requirements. Intensive work with native speakers by students individually. May be repeated for credit. S/U grading.

597. Preparation for MA Comprehensive and Ph.D. Qualifying Examinations. (1 to 8) Preparation: at least six graduate linguistics courses. May be taken only in terms in which students expect to take comprehensive examinations. May not be applied toward MA course requirements. May be repeated for credit. S/U grading.


599. Research for PhD Dissertation. (1 to 16) Preparation: advancement to PhD candidacy. May not be applied toward PhD course requirements. May be repeated for a maximum of 8 units. S/U grading.

C225. Neurolinguistics. (5) Lecture, four hours; discussion, one hour (when scheduled). Requisites: courses 200 A, 120 A, 119 B or 120 B. Examination of relationship between brain, language, and linguistic theory, with evidence presented from atypical language development and language disorders in the mature brain. Topics include methodologies to investigate normal and atypical hemispheric specialization for language and children and adults with acquired and/or developmental disorders. Concurrently scheduled with course C135. Graduate students expected to read more advanced neurolinguistic literature and produce research papers of greater depth. S/U or letter grading.

236. Computational Phonology. (4) Lecture, four hours. Introduction to computational models of phonology and phonological acquisition. Topics include finite state automata, probabilistic automata, overstrained models, dynamic programming methods. Letter grading.

237. Computational Semantics. (4) Lecture, four hours. Topics include computational models of semantics. Topics include semantic representation, decision procedures, computational aspects of logical formalisms, and applications in natural language processing. Letter grading.

238. Computational Syntax. (4) Lecture, four hours. Topics include computational models of syntax. Topics include syntactic representations, parsing algorithms, and applications in natural language processing. Letter grading.

239. Introduction to Computational Linguistics. (4) Lecture, four hours. Introduction to computational models of linguistics. Topics include finite state automata, probabilistic automata, overstrained models, dynamic programming methods. Letter grading.
Upper-Division Courses


189. Advanced Honors Seminars, (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to upper-division lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. Letter grading.

189HC. Honors Contracts, (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to upper-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

 pcaprogram
The John E. Anderson Graduate School of Management at UCLA offers a variety of programs leading to graduate degrees at the master’s and doctoral levels. These include a professional master’s (MBA), a Master of Financial Engineering (MFE), and a Master of Science in Business Analytics (MS), as well as an Executive MBA Program designed for working managers who are moving from specialized areas into general management and a three-year Fully Employed MBA Program for emerging managers. The school also offers a Global Executive MBA for Asia Pacific (dual degree program with the National University of Singapore Business School).

Ten concurrent degree programs (Management MBA/Computer Science MS, Management MBA/Dentistry DDS, Management MBA/Latin American Studies MA, Management MBA/Law JD, Management MBA/Library and Information Science MLIS, Management MBA/Medicine MD, Management MBA/Nursing MSN, Management MBA/Public Health MPH, Management MBA/Public Policy MPP, and Management MBA/Latin American Studies MA) are also offered.

Management

Lower-Division Courses

1A-1B. Principles of Accounting. (4–4) Lecture, three hours; discussion, one hour. Not open to freshmen. P/NP or letter grading. 1A. Introduction to financial accounting principles, including preparation and analysis of financial transactions and financial statements. 1B. Requisite: course 1A. Completion of balance sheet with emphasis on debt and equity, including in-depth introduction to terms of money values. 1B. Requisite: course 1A. Completion of balance sheet with emphasis on debt and equity, including in-depth introduction to terms of money values.

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

88. Lower-Division Seminar: Special Topics in Management. (1 to 4) Seminar, three hours; outside study, nine hours. Requisite: satisfaction of Entry-Level Writing requirement. Variable topics seminar that examines specific issues or problems and ways that professionals in management approach study of them. Students define, prepare, and present their own research projects with guidance of professional school faculty member. Letter grading.

99. Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to lower-division lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

89HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors and departmental honors programs. Designed as adjunct to lower-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers,
other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

99. Student Research Program. (1 to 2) Tutorial (supervised research or other scholarly work), three hours per week per unit. Entry-level research for locomotive students under close supervision of faculty mentor. Students must be in good academic standing and enrolled in minimum of 12 units (excluding this course). Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP or letter grading.

Upper-Division Courses


109. International Business Law. (4) Lecture, three hours. Recommended requisite: course 120. Study of international business legal environment, including general overview of international laws and organizations and comprehensive review of U.S. regulations of international business transactions. Special emphasis on international litigation, commercial transactions, regulation of investments, multinational corporations, and international banking. P/NP or letter grading.


121. Ethical Leadership in Accounting. (4) Lecture, seven and one half hours. Not open to freshmen. Review of range of ethical considerations in business decisions involving individuals, corporations, society, and international business. Analysis of cases for presentation and discussion. What is ethical dilemma posed? Why is it an ethical dilemma? Possible decisions and bands of ethical choices supporting them? Offered in summer only. Letter grading.

122. Management Accounting. (4) Lecture, three hours. Requisites: course 1B, one statistics course. Nature, objectives, and procedures of cost accounting and control; job costing and process costing; accounting for manufacturing overhead; cost budgeting; cost reports; joint-product costing; distribution cost; standard costs; differential cost analysis; profit-volume relationships and break-even analysis. P/NP or letter grading.

123. Auditing. (4) Lecture, three hours. Requisite: course 122. Comprehensive study of procedures used in verification of financial statements and related information, including ethical, legal, and other professional issues. Auditing of a complete set of financial statements. P/NP or letter grading.


127A. Tax Principles and Policy. (4) Lecture, three hours. Requisite: course 1B. Study of fundamental income tax problems encountered by individuals and other entities in analyzing business, investment, employment, and personal decisions. Special emphasis on role of tax laws in influencing transactions and decision-making. P/NP or letter grading.

127B. Corporate and Partnership Taxation. (4) Lecture, three hours. Requisite: course 1B. Recommended course 127A. Study of tax issues arising in formation, operation, and termination of corporations and partnerships. Special emphasis on closely held enterprises, including S corporations. P/NP or letter grading.

127C. International Taxation. (4) Lecture, three hours. Recommended requisite: course 127A. Study of two principle areas of international taxation from U.S. regulatory perspective: taxation of American citizens and companies conducting business in international arena (outbound transactions) and taxation of foreign nationals and companies who invest or conduct business in the U.S. (inbound transactions). P/NP or letter grading.

128. Special Topics in Accounting. (4) Lecture, three hours. Requisite: course 120B. Selected topics in public accounting, such as audit and fraud examination, mergers and acquisitions, public company status and going public, investor relations, serving entrepreneurial clients, and fund accounting. Discussion of case study of current interest in accounting profession. Business plan preparation. P/NP or letter grading.

130A. Basic Managerial Finance. (4) Lecture, three hours. Requisites: course 1B, one statistics course. Study of financial decision making by business firms, with emphasis on applications of economic principles and accounting principles in financial decision making and analysis. P/NP or letter grading.


140A. Information Technology in Accounting. (4) Lecture, seven and one half hours. Not open to freshmen. Introduction to role and use of models and modeling in managerial decision making, with focus on important types of models, their formulation and application and the extent to which they might be gained from use of modeling. Enables managers to understand role of quantitative models in firms that are most often applicable in business planning and decision-making. Emphasis on applications in area of accounting, finance, marketing, and operations, with emphasis on model formulation, interpretation of solutions, and understanding of mathematical versus verbal explanation of situations. Use of solution techniques and computer to solve problems. Offered in summer only. Letter grading.


160. Entrepreneurship and Venture Initiation. (4) Lecture, three hours; discussion, one hour. Introduction to key concepts of entrepreneurship, including new product development, finance, business plan development, and technology commercialization. Basic tools and personal characteristics required for entrepreneurship. Terminology used by lawyers, accountants, venture capitalists, and other investors when forming and financing new ventures to be developed as startups, spinouts from existing company, or acquisitions of existing company (or its assets). Assessment of feasibility of business concept and communication of concept to potential investors, employees, and business partners. Discussion of technology feasibility, intellectual property, and licensing. Letter grading.

161. Business Plan Development. (4) Lecture, three hours. Enforced requisite: course 160. Fundamentals of developing effective business plans: presentation and written form. Basic principles of designing and articulating plans for sales, marketing, product or service development, financial, and staffing functions of new startup businesses. How to develop well-written investment-quality business plans and business plan presentations, understand various analytical processes required to produce such plans, improve student writing and oral presentation skills, and formally present their business plans to audience of angel and venture capital investors. Letter grading.

162. Entrepreneurship and Technology Commercialization. (4) Lecture, three hours. Designed for juniors/seniors. Introduction to transformation of new knowledge and inventions into viable commercial products and services, focusing on technology being developed at major research universities like UCLA. Initial emphasis on assessment and protection of intellectual property and early evaluation of technologies to determine potential for commercialization. How intellectual property in its various forms is protected and how rights to these assets are negotiated by parties involved. Examination of nature of contracts and negotiation techniques, and technology transfer offices, researchers, technical experts, and early investors in commercialization space that might lead to patents, licenses, or new business development. Letter grading.

163. Entrepreneurship and New Product Development. (4) Lecture, three hours. Designed for juniors/seniors. Introduction to new product innovation and management. Students assume role of product manager in identifying, developing and commercializing new products through cases, businesses currently in news, team project, and readings to develop critical thinking, decision-making skills, and creativity in launch of successful new product (team project). Letter grading.

164. Entrepreneurial Finance and Accounting. (4) Lecture, three hours. Designed for juniors/seniors. Introduction to fundamental concepts of financial and management of early-stage companies, with particular emphasis on capital formation of new ventures. Relationship between entrepreneurs and investors and distinction between goals of founders and investors, including nature of negotiation and relationship between parties over time. Letter grading.


167. Social Entrepreneurship. (4) Lecture, three hours. Designed for juniors/seniors. Examination of key challenges and opportunities for developing and managing enterprises with social missions. Use of framework to develop strategic implementation plan that incorporates external analysis, organizational assessment, strategy development, and executable action steps and draws on expertise and experience of faculty members and alumni as well as experts in fields of social entrepreneurship, nonprofit management, and strategic philanthropy who present selected topics of interest. Letter grading.

168. Personal Financial Health: Theory and Practice. (4) Lecture, three hours. Helps develop class of financially literate students who will be financially secure today and in future. Students gain knowledge, skills, and confidence to take charge of their financial futures and have potential to prosper. Covers many financial decisions made by entrepreneurs. Interplay between financial conditions of business and financial situation of owner is something that many entrepreneurs fail to plan for when they launch new business.
Specific, local issues covered include: budgeting; time value of money, installment purchases, protection of assets, principles of investing, retirement and estate planning, psychology of money, income taxes, banking, and credit. Topics from behavioral finance include sub- 

169. Entrepreneurial Leadership and Practical Experience. (4) Lecture, three hours; fieldwork, eight hours. Enrollment by instructor consent. Capitalstone or other campus or off-campus entrepreneur development program with a structured on-ramp to skilled application of behavioral economics to real-world contexts. Ideal for students who wish to gain insight and develop frameworks for finding broad behavioral science principles applicable to commercial real estate finance, investment, three hours. Exploration of fundamentals of residential and commercial real estate finance, investment, and development. Study of qualitative concepts and quantitative tools necessary to develop real estate decision-making skills. Analysis of variety of case studies of finance, investment, and development projects from U.S., Europe, China, and Japan that highlighted opportunities and challenges, and solutions to problems that were unique to each situation. Use of specially prepared Excel models to understand and evaluate financial aspects of transactions, consideration of macroeconomic trends as a regular basis with instructor and provide periodic reports of their experience. May be repeated for maximum of eight units. Individual contract with supervising faculty member required. P/NP or letter grading.  

199. Directed Research in Management. (2 to 8) Tutorial, to be arranged. Limited to juniors/seniors. Supervised individual research or investigation of selected topic under the direction of a faculty mentor. Culminating paper or project required. May be repeated for credit. Individual contract required. P/NP or letter grading. 

Graduate Courses 

201A. Business Forecasting: Turning Numbers into Knowledge. (4) Discussion, three hours. Preparation: familiarity with linear regression. Examination of one approach to analytical thinking—forcing numerical and textual data into carefully formulated alternative model specifications. Variables (growth, inflation, unemployment, interest rates, and exchange rates), industry data, and firm data. Letter grading. 

201B. Econometrics and Business Forecasting. (4) Lecture, three hours. Development of standard topics in applied econometric modeling. Emphasis on assumptions underlying classical normal linear regression model, special problems in application, and interpretation of results. Practical applications extensively developed in student projects. 

202B. Economic Consulting and Applied Managerial Economics. (4) Lecture, three hours. Requisites: courses 402, 405. Use of economic methods to analyze issues of interest to corporate management, including but not limited to: growth, inflation, unemployment, interest rates, and exchange rates. Credit and no degree. Letter grading. 


185SA. Individual Studies for USIE Facilitators. (2) Tutorial, to be arranged. Enforced requisite: course 185SA. Enforced corequisite: Honors College 101E. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor to discuss selected USIE seminar topic, conduct preparatory research, and begin preparation of syllabus. Individual contract with faculty mentor required. May not be repeated. Letter grading. 

188SA. Individual Studies for USIE Facilitators. (1) Tutorial, to be arranged. Enforced requisite: course 188SA. Enforced corequisite: Honors College 101E. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor to discuss selected USIE seminar topic, conduct preparatory research, and begin preparation of syllabus. Individual contract with faculty mentor required. May not be repeated. Letter grading. 

Correlated Honors Courses 

189. Advanced Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to undergraduate lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of four units. Individual honors contract required. Honors content noted on transcript. Letter grading.  

195. Community or Corporate Internships in Management. (2 to 4) Tutorial, to be arranged. Limited to juniors/seniors. Internship in supervised setting in community agency or business. Students meet regularly with instructor and provide periodic reports of their experience. May be repeated for maximum of 8 units. Individual contract with supervising faculty member required. P/NP or letter grading. 

199. Directed Research in Management. (2 to 8) Tutorial, to be arranged. Limited to juniors/seniors. Supervised individual research or investigation of selected topic under the direction of a faculty mentor. Culminating paper or project required. May be repeated for credit. Individual contract required. P/NP or letter grading. 

214. Managerial Decision Making. (4) Lecture, three hours. Introduction to principles of rational judgment and choice, common behavioral biases of managers and consumers, and corrective tools and procedures, drawing heavily on disciplines of psychology and behavioral economics. Topics include decision structuring, chance processes, forecasting, confidence, likelihood judgment, risk perception and risk-taking, decision under uncertainty, multiattribute choice, framing and mental accounting, intertemporal choice, allocation decisions, organizational decision making, choice architecture, happiness, and well-being. S/U or letter grading. 


217A. Decision Analysis. (4) Lecture, three hours. Requisite: course 402. Managerial decision making occurs in presence of uncertainty which can be about events over which no individual has any control or it can be about what others will do. Framework provided for structuring and analyzing such decisions, with application of framework to such scenarios as product development, litigation, business of treasure hunting, and bidding. S/U or letter grading. 

218. Tools and Analysis for Business Strategy. (4) Lecture, three hours. Goal is for students to become more comfortable with design, execution, and interpretation of data analysis that can meaningfully inform business strategy formulation. Pedagogical approach is firmly rooted in learning by doing. Use of variety of real-world examples to gain practice with quantitative methods that can be deployed in business settings to analyze underlying predictors and causes of firm success. Letter grading. 


222. Corporate Decision Making and Incentives. (4) Lecture, three hours. Requisite: course 403. Use of basic microeconomics to answer what information is needed to make managerial decisions, what incentives are needed to motivate managers, and how information should be recorded to facilitate both. Essential for careers in consulting, private equity, and general management. S/U or letter grading. 

223. Choice Architecture. (4) Lecture, three hours. Leverages behavioral science principles to solve real societal and policy problems. Through partnerships with health, government, and industry course applicants work on real-world behavioral science consulting projects; students who want to receive rigorous behavioral science training into their emerging leadership style. Letter grading. 

224. Business Law for Managers and Entrepreneurs. (4) Lecture, three hours. Introductory course through a structured course of readings and exercises to recognize, understand, and manage legal issues. Topics include contract law, litigation process and alternatives, intellectual property law, business formation, corporate law, employment law, insurance, bankruptcy law, and bankruptcy reorganizations. How to deal with potential legal issues before they become serious problems. S/U or letter grading. 

225. Entrepreneurial Leadership and Practical Experience. (4) Lecture, three hours; fieldwork, eight hours. Enrollment by instructor consent. Capitalstone for undergraduate and graduate entrepreneurship. Application of critical thinking, research skills, and education to one of following experiences: internship at off-site entrepreneur development startup idea. Real-world experience supplemented with theoretical knowledge on entrepreneurial leadership, ethics, and professional branding. Letter grading.
fixed-in-one portfolio management; use of derivative instruments and dynamic investment strategies; asset securitization. S/U or letter grading.


223E. Market and Credit Risk Management. (4) Lecture, three hours. Requisites: courses 408, 430. Discussion of regulated markets' role in market and credit risk management, data necessary to manage these risks, types of models used for risk management, types of securities and techniques for hedging market and credit risks, performance measurement of risk management systems, and other types of risks that affect risk management, such as operation risk, liquidity risk, commodity risk, weather risk, and model risk. Letter grading.

223F. Behavioral Finance. (4) Lecture, three hours. Requisite: course 408. Introduction to and explanation of evidence of abnormal return behavior found in U.S. equities markets. Presentation of some paradigms on the stock market are rooted in studies from psychology and explanation of trading activity in equity risk-return paradigm. Introduction to some psychological biases that researchers suspect are behind patterns of behavior in results from psychology literature to explain irrationalities encountered in finance literature. Presentation of latest evidence on why individual investors trade and how individual and institutional investors form their portfolios. Letter grading.

224A. International Financial Markets. (4) Lecture, three hours. Enforced requisite: course 408. Conceptual understanding of foreign exchange trading in currency markets, including international bond market, and equity markets in various countries. Emphasis on underlying economic principles, although where relevant, institutional features helpful in understanding structure and operations of markets to be dealt with in detail. S/U or letter grading.

225. Venture Capital and Private Equity. (4) Lecture, three hours. Requisite: course 408. Use of cases to study issues in venture capital and private equity. Analysis of issues faced by entrepreneurs who are setting up new firms, as well as decisions of private equity partnership managers and investors. How transactions of all types are structured and why investors and entrepreneurs choose certain contractual arrangements. Development of understanding for institutional context of private equity finance. Time also devoted to leveraged buyouts. S/U or letter grading.

228. Special Topics in Finance. (4) Lecture, three hours. Requisites: courses 230 (or 430), 408. Selected topics in finance theory, empirical studies, and financial policy. May be repeated for credit with instructor change. S/U or letter grading.

231E. Managing Finance and Financing Emerging Enterprises. (4) Lecture, three hours. Requisites: courses 230 (or 430), 403, 408. Designed for second-year graduate students. Exploration of operational and financial considerations in managing entrepreneurial enterprises. Integrative course, building on methodological, philosophical, and conceptual principles and concepts provided in requisite functional and strategic core courses. Use of extensive readings and cases to develop skills and philosophical basis for applying managerial concepts to entrepreneurial operations. S/U or letter grading.

240E. Managing Entrepreneurial Operations. (4) Lecture, three hours. Requisite: course 410. Designed for second-year graduate students. Exploration of operational and financial considerations in managing entrepreneurial enterprises. Integrative course, building on methodological, philosophical, and conceptual principles and concepts provided in requisite functional and strategic core courses. Use of extensive readings and cases to develop skills and philosophical basis for applying managerial concepts to entrepreneurial operations. S/U or letter grading.

240F. Global Supply Chain Management. (4) Lecture, three hours. Requisite: course 410. Business environment today is globalized. Businesses are required to operate in many industries competition has moved from firm level to supply chain level. Provides understanding of strategic, tactical, and operational issues in supply chain management, with generous attention to emerging digital economy. S/U or letter grading.

246A. Business and Environment. (4) Lecture, three hours. Overview of many ways in which environmental issues interact with main functional areas of business: finance, marketing, strategy, operations, accounting. Basic introduction to background of environmental issues, with focus primarily on business aspects. Specific topics vary from year to year, but course details what every manager should know about environmental issues in business.

M247. Intellectual Property for Technology Entrepreneurs and Managers. (2) (Same as Electrical and Computer Engineering M293.) Seminar, two hours. Topics include best practices to put in place before product development starts, how to develop high-value patent portfolios, patent licensing, offensive and defensive IP litigation considerations, trade secrets, opportunities and pitfalls of open source software, trademarks, managing copyright in increasingly complex content ecosystems, and adopting IP strategies to globalized markets. Topics include best practices to put in place before product development starts, how to develop high-value patent portfolios, patent licensing, offensive and defensive IP litigation considerations, trade secrets, opportunities and pitfalls of open source software, trademarks, managing copyright in increasingly complex content ecosystems, and adopting IP strategies to globalized markets.

248A. Corporate Valuation. (4) Lecture, three hours. Requisites: courses 408, 430. Lecture, discussions, and student presentations. Issues and analytical tools relevant for valuing projects, divisions, and corporations. Theories of discounted cash flow valuation (DCF) and relative valuation using market multiples. Theories of practice to value different projects, including IPO, mergers and acquisitions, divestitures, and private placement. Exploration of how real options affect investment decisions and how they can be identified and valued. Letter grading.

231D. Takeovers, Restructuring, and Corporate Governance. (4) Lecture, three hours. Requisites: courses 230 (or 430), 403, 408. Designed for second-year graduate students. Exploration of organizational control, and investment issues confronting rapidly growing companies in entrepreneurial settings. Consideration and selection of financing vehicles that may be appropriate to securing organizations’ money requirements. S/U or letter grading.

232A. Investment Management. (4) Lecture, three hours. Requisites: courses 230 (or 430), 403, 408. Topics include application of behavioral theory to investment decision making. Performance evaluation, and basic principles of portfolio management strategies. S/U or letter grading.


263A. Consumer Behavior. (4) Lecture, three hours. Requisite: course 411. Study of nature and determinants of consumer behavior. Emphasis on influence of sociocultural factors such as personality, small groups, demographic variables, social class, and culture on formation of consumers’ attitudes, consumption, and purchasing behavior. S/U or letter grading.


265. Brand Management. (4) Lecture, three hours. Requisite: course 411. Introduction to considerations in development, implementation, and management of brands. Discussion of challenges to creating and maintaining strong brands. Topics include building brand knowledge and identities, marketing mix and brands, brand architecture, and brand equity. Letter grading.

266A. New Product Development. (4) Lecture, three hours. Requisite: course 411. Examination of new product development (NPD) process with objective of learning key tools and methods and applying them to case studies, exercises, and course project. Products viewed through three lenses: quantifiable rational attributes, appeal due to emotional characteristics, and cost/technology/competitive tradeoffs. NPD process also investigated through five key phases: ideation, concept selection, development, prototyping and testing, and ramp-up and product launch. Coverage of mass customization, parallel prototyping, cost reduction, and creativity. Letter grading.

266B. Advertising and Marketing Communications. (4) Lecture, three hours. Examination of a case-tailed study of decisions regarding media and forms of advertising and marketing communications to develop integrated strategies. Review of use and effectiveness of advertising and communication tools. Evaluation of advertising and promotional policies from development through implementation. Letter grading.

267. Digital Marketing Analytics. (4) Lecture, three hours. Requisites: courses 402, 411. Use of notion of customer life cycle as organizing principle and application to data mining and marketing analytics. Emphasis on discovery and use of data-analytics tools for interacting with customers and learning about their preferences as they evolve through four stages of customer life cycle: (1) customer acquisition, (2) initial purchase behavior, (3) mid-maturity purchase and transaction behavior, and (4) customer attrition or switchover to other product lines. S/U or letter grading.

268. Selected Topics in Marketing. (4) Lecture, three hours. Requisite: course 411. Study of selected areas of marketing knowledge and thought. Specific subject varies each term depending on particular interests of instructor and students. Individual projects and reports. May be repeated for credit. S/U or letter grading.


M271A. Medtech Innovation I: Entrepreneurial Opportunities in Medtech. (4) (Same as Bioengineering M233A). Lecture, three hours; outside study, nine hours. Designed for graduate and professional students interested in learning about the medical device and medtech industries. Topics include understanding how to identify unmet clinical needs, properly filtering through these needs using various acceptance criteria, and selecting promising needs for which potential medtech solutions are explored. Students work in groups to expedite traditional research and development processes to invent and implement new medical devices that increase quality of clinical care and reduce cost and improve safety. The course is intended to provide an introduction to the medical device and medtech business model. Letter grading.

M271B. Medtech Innovation II: Prototyping and New Venture Development. (4) (Same as Bioengineering M233B). Lecture, three hours; outside study, nine hours. Requisite: course M271A. Designed for graduate and professional students in engineering, dentistry, design, law, management, and medicine. Focus is on understanding how to identify unmet clinical needs, properly filtering through these needs using various acceptance criteria, and selecting promising needs for which potential medtech solutions are explored. Students work in groups to expedite traditional research and development processes to invent and implement new medical devices that increase quality of clinical care and reduce cost and improve safety. The course is intended to provide an introduction to the medical device and medtech business model. Letter grading.


273. Current Topics in Entertainment, Media, and Sports. (4) Lecture, three hours. Restricted to senior and graduate students. Examination in depth of current issues in entertainment, media, and sports. Topics vary. May be repeated for credit. S/U or letter grading.


M277. Real Estate Finance Law. (1 to 8) (Same as Law M209). Lecture, three hours. Concentrated study of law governing financing of land transactions from both national and California perspectives. Topics include California deed of trust, installment land contracts and other mortgaging substitutes, assignments of rents, real estate closings, prepayment, foreclosure, priorities, California antideficiency legislation, impact of borrower bankruptcy on mortgage lenders, construction lending, future advances, and secondary market. Concurrently scheduled with Law 209. In Progress (277A) and S/U or letter (277B) grading.

278A. Urban Real Estate Investing and Financing. (4) Lecture, three hours. Requisites: courses 408, 430. Investor-oriented course in which real estate and business trends are evaluated to determine alternative real estate investment opportunities. Use of current financial, economic, and investment theories and techniques to real estate investment opportunities in case studies and short case problems to illustrate development of investment strategies. S/U or letter grading.

279A. Cases in Real Estate Investments. (4) Lecture, three hours. Requisites: courses 408, 430. Development of understanding of principal issues involved with real estate investment and finance. Topics include real estate financial analysis and valuation in variety of contexts (single and multifamily residential, commercial, industrial, shopping, hotel, and other) with emphasis on real estate taxation, real estate development, process, securitization, REITs, and leasing and workout of troubled properties. S/U or letter grading.

279B. Urban Real Estate Development. (4) Lecture, three hours. Requisites: courses 278A or 279A, 408, 430. Introduction to various aspects of real estate development from perspectives of entrepreneur and investor. Coverage of all types of development opportunities including single family housing, hotel, office, retail, and industrial. Industry guest speakers to help reinforce principles taught. Real estate development simulation and group presentations to panel of investors included. S/U or letter grading.


281B. People in Organizations. (4) Designed for graduate students. Introduces to different philosophical perspectives for understanding human behavior. Theories and concepts important for understanding human behavior in organizations, as well as management implications of individual, group, and social behavior. Special attention to knowledge about satisfaction, motivation, and productivity in organizations.

282. Optimizing Team Performance. (4) Lecture, three hours. Enforced prerequisite: courses 409, 414A. Optimization of team performance by diagnosing complex team dynamics and taking appropriate action to improve team functioning to help students strengthen their teamwork skills in ways that are proven to increase effectiveness and performance of teams. Letter grading.

284C. Managing Entrepreneurial Organizations. (4) Lecture, three hours. Issues involved in developing and managing entrepreneurial organizations. Topics include organizational growth, managerial tools, strategic planning, organizational design, management development, control systems, leadership, and culture change. Enforced prerequisite to 284D. Emphasizes that individuals must make as organizations grow. S/U or letter grading.

285A. Leadership, Motivation, and Power. (4) Discussion, three hours. Designed for graduate students. Theories and practices influencing how leaders and subordinates motivate and influence people. Relative effectiveness of various leadership styles, different motivation theories, and power tactics from managerial point of view. Use
of experience-based learning methods to aid diag-  

dnosis and understanding of one’s own influence styles. S/U or letter grading.

285B. Managerial Interpersonal Communication. (4) Discussion, three hours. Designed for graduate students. Interpersonal and personality factors affecting management styles and modes of communication in one-to-one, group, and large-systems settings. Opportunities offered to deepen understanding of one’s own communication styles and skills, considering verbal, nonverbal per- ceptual, and cross-cultural aspects. S/U or letter grading.

286. Negotiations Behavior. (4) Discussion, three hours. Practical application of theoretical principles and concepts from psychology, sociology, and economics through lectures and readings, with focus primarily on improving practical negotiating skills through exper- iential learning (i.e., negotiations simulations). Participants learn not only to enhance their individual abili- ties in dyadic and group situations, but also to analyze contexts for effective application of these skills. S/U or letter grading.

291. Strategies for Technology-Based Corporate Development. (4) Lecture, three hours. Enforced requ- isite: course 420. Focus on key aspects of corporate business development transactions, including stra- tegic deal structuring and acquisition integration, deal structure (including accounting and tax issues), and economic analysis of transactions. Examination of technology and digital media markets. Letter grading.

M292B. Growth, Science, and Technology. (4) (Same as Public Policy M280B.) Lecture, three hours. Economic growth and change. Role of advances in science and technology and actions of maximizing in- novators and factors impinging on their behavior. How technological breakthroughs (or discontinuities) can form new industries or transform nature of and popu- lation of firms in existing industries. S/U or letter grading.

M293A. Political Environment of American Busi- ness. (4) (Same as Public Policy M281.) Lecture, three hours. Examination of problems or issues of current concern in management, with numerous topics offered each year. May be repeated for credit. S/U grading.

293C. Ethical Considerations in Business. (4) Lecture, three hours. Enforced requisite: course 420A. Exploration of a range of ethical considerations in business decisions involving the in- dividual, corporation, society, and international busi- ness. Analysis of cases for classroom presentation and discussion.

294. Law and Economics Workshop. (2 or 3) Sem- inar, two hours. Enforced requisite: course 405 or Economics 210A. Knowledge of empirical methods and basic cal- culus required. Interdisciplinary speaker series bringing together trade spokesmen with scholars and students from UCLA Law School and academic de- partments. Topics include contracts, torts, intellectual property, and business law. Students write graded re- action papers. May be repeated for credit. Concur- rently scheduled with Economics 206 and Law 648. S/ U or letter grading.


295B. Small Business Management. (4) Exploration of crucial aspects in managing small business enter- prises. Emphasis on identification and analysis of characterizing operating problems of small firms and application of appropriate methods or techniques for their solution.

295C. Corporate Entrepreneurship. (4) Inquiry into nature of entrepreneurship and effective implementa- tion of entrepreneurial strategies in large industrial enter- prises. Emphasis primarily on managerial effects aimed at planning, development, and exploitation of technical and organizational innovations, manage-
six times (Saturdays included) per week for three weeks. Basic listening, speaking, writing, and working/leading teams for case analysis, cold call participation, presentations, and job search. Introduction to research and career resources. May not be applied toward MBA degree. Offered in summer only. S/U or letter grading.

454. Fieldwork in Organizations. (4) Fieldwork, to be arranged. Preparation: completion of at least two terms of MBA program. Required of all full-time MBA students in MBA program prior to associate dean or other supervising faculty adviser, students perform supervised practical experience or fieldwork on campus or abroad. Intern or fellow, executed in conjunction with an assigned program(s) pursuant to defined program of study that includes reporting and assessment of fieldwork experience through combination of written and oral presentations and may include preparation of evaluations or consulting report correlating to defined program of study. S/U grading.

455E. International Exchange Program. (2 to 16) Lecture, 30 hours; discussion, 10 hours. Students attend one to four MBA-level courses at institutions with exchange agreements with Anderson School. Some courses may be taught in local language. In addition to learning subject matter of courses, provides opportunity to enhance their knowledge of foreign language while exchanging ideas and views with their peers at that institution. S/U grading.

457A. Fieldwork in Investment Management. (2) (Formerly numbered 457F) Seminar, two hours; fieldwork, one hour. Seminar introduces to investment management and development of decision skills. Fundamental theories of portfolio management and investment strategy. Review of literature to identify investment strategies. Knowledge transfer and training before and during incoming and incoming class leadership transition. In Progress grading (credit to be given only on completion of course 457B, 457C, and 457D).

457B. Fieldwork in Investment Management. (2) Seminar, two hours; fieldwork, one hour. Four-term course. Preparation for master's comprehensive exam. Fieldwork in organization as intern or fellow. Execution of predetermined assignment(s) pursuant to defined program of study. S/U or letter grading.

457C. Fieldwork in Investment Management. (2) Seminar, two hours; fieldwork, one hour. Four-term course. Monitoring of implemented strategy. Documenting evaluation of portfolio performance. Development of new strategy for incoming class. In Progress grading (credit to be given only on completion of courses 457C and 457D).

457D. Fieldwork in Investment Management. (2) Seminar, activity, one hour. Four-term course. Culmination and transition of portfolio management project. Formal presentation of new strategy to incoming class and delivery of annual report. Training of incoming class with knowledge transfer and dissemination of tools for back testing. Letter grading.

458A-458B. Global Immersion: Two-Quarter Plan. (2–2) For course 458A: lecture, three hours; presentations, site visits, and discussion, 20 hours; for course 458B: fieldwork, three hours; presentations, site visits, and discussion, 20 hours. Course 458A is enforced requisites: English, Designed for MBA, EMBA, FEMBA, and GEMBA students. Four on-campus academic sessions and one intensive week in another country for blend of lectures, guest speakers, panel discussions, and company site visits, with focus on doing business in other countries. Exposure to economy, legal and political environment, major industries and businesses, local culture, key historical events. For course 458B: fieldwork outside U.S. Taught by school faculty members in conjunction with lectures by faculty members from top institutional partners, as well as local and regional government officials, business experts, and influential leaders from country of focus. May be repeated for credit based on program requirements. In Progress (458A) and letter (458B) grading.

458E. International Exchange. (2 to 4) Lecture, 15 hours; discussion and assignments, up to 30 hours (2- unit course). Preparation: completion of first-year core courses. Taught in English. Open to EMBA and FEMBA students. Intensive one-week study at international university. Courses taught by faculty members from partner institution in destination country. Topics vary but are tailored to MBA curriculum. S/U or letter grading.

460A-460B. Managing Finance and Financing Emerging Enterprises. (2–2) Lecture, three hours. Course 460A is enforced requisites to 460B. Designed for second-year graduate students. Emphasis on financial concepts and investment management. Topics include rapid growth companies in entrepreneurial settings. Consideration and selection of financing vehicles that may be appropriate to securing money requirements of organizations. In Progress (460A) and letter (460B) grading.

466B. Advanced Financial Policy for Managers. (4) Lecture, four hours. Limited to Executive MBA program students. Modern financial management deals with decision making under uncertainty for corporate financial management, portfolio investment decisions, financial institutions, and international financial management. Focus on understanding the theoretical tools and applying them in casework. S/U or letter grading.

472B. Customer Information Strategy. (4) Lecture, four hours. Limited to Executive MBA program students. Introduction to marketing and marketing of products and services to customers. Use of creativity tools, customer research, and marketing science to create value and allocate resources so as to maximize revenues and profits that result. S/U or letter grading.

479E. International Exchange: Executive MBA Program. (2 to 4) Lecture, three hours; discussion and site visits, 20 hours. Preparation: completion of first-year core courses in Executive MBA program. Intensive one-week program in one foreign country, with courses taught by faculty members from partner institutions in destination country. Topics vary but are tailored to MBA curriculum, including but not limited to marketing, global economics, strategy, human resources, operations, and technology management. Exposure to local business practices, company site visits, and exploration of local cultural and historical sites.

481A-481B. Negotiations Behavior. (2–2) Lecture, three hours. Course 481A is enforced requisites to 481B. Limited to Global Executive MBA students. Presentation of theoretical principles and concepts from contract management. Understanding of negotiation strategies, approaches to decision making under uncertainty. S/U or letter grading.

484A-484B. Management of Technology and Innovation. (2–2) Lecture, three hours. Course 484A is enforced requisites to 484B. Limited to Global Executive MBA students. Problems of managing technological innovation. Analysis of issues in innovation-related management, technological consideration into strategy, adoption of technological innovation, promoting innovation through organizational design and leadership, e-business, and business strategy. In Progress (484A) and letter (484B) grading.

485. Corporate Entrepreneurship. (4) Lecture, three hours. Managerial efforts aimed at identification, development, and exploitation of technical and organizational innovations, management of new product or process developments, and effective new venture management in context of large corporations in manufacturing and service industries. Development of awareness and understanding of range, scope, and complexity of issues related to creation of organizational environment that is supportive of entrepreneurial endeavors, and insight concerning effective implementation of technological and organizational innovations in corporate setting. Letter grading.

488. Business Plan Development. (4) Lecture, four hours. Limited to Executive MBA program students. How to develop business plans, understanding of analytical processes required to produce plans, improvement of student writing and oral presentation skills, and review of business plans of other entities. Writing of one complete business plan and presentation of it to experienced investors. Letter grading.

491. Entrepreneurship and Venture Initiation. (4) Limited to Executive MBA program students. Introduction to basic tools and jargon required for entrepreneurship that requires financing or management of intellectual property. Terminology used by lawyers, accountants, venture capitalists, and other investors when forming and financing new companies. Assessment of feasibility of business concept and communication of concept to potential investors, employees, and business partners. S/U or letter grading.

501. Cooperative Program. (2 to 8) Preparation: consent of UCLA AGSM graduate adviser and assistant dean, and host campus instructor, department chair, and graduate dean. Used to record enrollment of UCLA students in courses taken under cooperative arrangements with USC. S/U grading.

596. Research in Management. (1 to 8) Directed individual study or research. May be repeated. S/U or letter grading.

597. Preparation for Qualifying Examinations. (4 or 12) Preparation for master's comprehensive examination or PhD qualifying examinations. S/U grading.


Management / Executive MBA

Graduate Courses

402. Data Analysis and Management Decisions Under Uncertainty. (4) (Formerly numbered Management 402) Lecture, four hours. Limited to Executive MBA program students. Survey of statistical model building, with emphasis on managerial interpretation of statistical summary data. Classical statistics covered through multiple regression to support courses in finance and marketing that follow. Fundamental approaches to decision making under uncertainty. S/U or letter grading.

403. Financial Accounting. (4) (Formerly numbered Management 403.) Lecture, six hours. Limited to Executive MBA program students. Familiarizes the manager with functions of accounting by focusing on use of external financial reports for evaluating corporate performance and use of accounting information for internal planning and control. S/U or letter grading.

408. Economic Analysis for Managers. (4) (Formerly numbered Management 462.) Limited to Executive MBA program students. Policy-oriented problems in amusement, tax securities, and environmental regulation. Concepts of microeconomic theory illustrated. Topics include traditional antitrust regulations, new trends in antitrust, private versus government antitrust, securities regulation, environmental regulations, and a business firm's optimal response to regulation.

409. Financial Policy for Managers. (4) (Formerly numbered Management 464A.) Lecture, four hours. Limited to Executive MBA program students. Modern financial management deals with decision making under uncertainty for corporate financial management, portfolio investment decisions, financial institutions,
409. Organizational Behavior. (4) (Formerly numbered Management 469.) Lecture, three hours. Limited to Executive MBA program students. Introduction to organizational behavior for executives, including but not limited to optimal decision making, fostering motivation, and other topics on psychology of leadership. Lecture, discussion, and experiential applications of course concepts. S/U or letter grading.

410. Operations and Technology Management: Systems, Strategies, and Policies. (4) (Formerly numbered Management 474.) Lecture, three hours. Limited to Executive MBA program students. Analysis of strategic and operating policies and decisions for systems that produce goods and services. Examination of role of comprehensive planning, inventories, scheduling of resources, distribution systems, and system location. Comprehensive operating problems.

411. Marketing Strategy and Policy. (4) (Formerly numbered Management 472A.) Lecture, four hours. Limited to Executive MBA program students. Strategic marketing decisions, including development of marketing objectives and strategies and implementation of these strategies through pricing, channel, promotion, and new product decisions. S/U or letter grading.

41A. Leadership Foundations I. (2) (Formerly numbered Management 474A.) Lecture, two hours. Limited to Executive MBA program students. Focus on individual problem-solving and decision-making skills. Alternative conceptual frameworks presented for augmenting diagnostic and decision-making skills of individuals. Use of readings, cases, decision simulations, and discussions to explore areas of charting job and career progress, working with others, and shaping work culture. S/U or letter grading.

41B. Leadership Foundations II. (1) (Formerly numbered Management 461B.) Lecture, one hour. Limited to Executive MBA program students. Continuation of course 41A, with focus on development of self-assessment and self-reflection skills. Facilitation of self-evaluation of leadership strengths and weaknesses, with emphasis on individual problem solving and decision making and team design and development. Readings, cases, decision simulations, peer coaching, and discussions. In Progress grading (credit to be given only on completion of course 41AC).

41C. Leadership Foundations II. (1) (Formerly numbered Management 461C.) Lecture, one hour. Limited to Executive MBA program students. Continuation of course 41AB. Further exploration of leadership strengths and weaknesses, with emphasis on individual problem solving and decision making and team design and development. Readings, cases, decision simulations, peer coaching, and discussions. S/U grading.

41D. Leadership Foundations III. (1) (Formerly numbered Management 461D.) Lecture, one hour. Limited to Executive MBA program students. Continuation of course 414C. Facilitation of self-evaluation of leadership strengths and weaknesses, with emphasis on career development, social networks, and organizational design. Readings, cases, decision simulations, peer coaching, and discussions. In Progress grading (credit to be given only on completion of course 414E).

41E. Leadership Foundations III. (1) (Formerly numbered Management 461E.) Lecture, one hour. Limited to Executive MBA program students. Continuation of course 414D. Further exploration of leadership strengths and weaknesses, with emphasis on individual leadership and organizational change. Readings, cases, decision simulations, peer coaching, and discussions. S/U grading.

420. Competitive Strategy and Business Policy. (4) (Formerly numbered Management 476.) Limited to Executive MBA program students. Study of general management task of forging a competitive strategy. Techniques for understanding the economics of business rivalry within a variety of industrial settings and implications of changing environments on business strategy.

421. International Business Residential. (4) (Formerly numbered Management 472D.) Seminar, six hours. Limited to Executive MBA program students. Focuses on doing business globally. Includes on-campus sessions and intensive week of study in another country with guest lecturers, panel discussions, and company site visits. Exposure to economic, legal and political environments, major industries and businesses, local culture, key historical events, and many facets of conducting business internationally. Taught by school faculty members in conjunction with lectures by faculty members from top institutional partners, as well as local and regional government officials and ministers, local business executives, and influential leaders from country of focus. S/U or letter grading.

422. Leadership in Practice. (4) Lecture, six hours. Limited to Executive MBA program students. Addresses practical decision-making challenges leaders face when confronting decisions alone and in groups. Students learn to recognize cognitive biases in themselves and in others and gain skills to re-calibrate group dynamics in order to achieve better results. These skills are taught experimentally through participatory simulations and post-hoc analyses. Letter grading.

428A–428B. Business Creation Capstone. (6–4) Lecture, three hours; fieldwork, three hours. Limited to Executive MBA program students. Designed for students interested in launching their own business. Students work in teams to develop comprehensive strategy for launching that business. Fullfills MBA comprehensive examination requirement. In Progress (428A) and letter (428B) grading.

439. Selected Topics in Management. (4) Seminar, six hours. Limited to Executive MBA program students. Examination of selected problems and issues in area of current concern in management. Letter grading.

440. Selected Topics in Management. (2) Seminar, three hours. Limited to Executive MBA program students. Examination of selected problems and issues in area of current concern in management. Letter grading.

441. Selected Topics in Management. (1) Seminar, two hours. Limited to Executive MBA program students. Examination of selected problems and issues in area of current concern in management. Letter grading.

442. Selected Topics in Management. (4) Seminar, six hours. Limited to Executive MBA program students. Examination of selected problems and issues in area of current concern in management. S/U grading.

443. Selected Topics in Management. (2) Seminar, three hours. Limited to Executive MBA program students. Examination of selected problems and issues in area of current concern in management. Letter grading.

444. Selected Topics in Management. (1) Seminar, two hours. Limited to Executive MBA program students. Examination of selected problems and issues in area of current concern in management. S/U grading.

445. Strategic Management Research. (4) (Formerly numbered Management 470D.) Seminar, six hours. Limited to Executive MBA program students. Preparation of strategic overview of selected company and identified in course 414E). These skills are taught experientially through participatory simulations and post-hoc analyses. Letter grading.

445A. Introduction to Strategic Management Research. (2) (Formerly numbered Management 470A.) Fieldwork, two hours. Limited to Executive MBA program students. Methods of organizational and strategic analysis to determine relationship of organization with its environment. In Progress grading (credit to be given only on completion of course 445B and 4450).

445B. Strategic Management Research. (4) (Formerly numbered Management 470B.) Fieldwork, four hours. Limited to Executive MBA program students. Preparation of strategic overview of selected company and analysis of primary and secondary data, including (but not limited to) interviews of corporate executives, corporate financial and marketing data, industry reports, and customer and competitor interviews. In Progress grading (credit to be given only on completion of course 445C).

445C. Strategic Management Research. (4) (Formerly numbered Management 470C.) Fieldwork, four hours. Limited to Executive MBA program students. Further research and analysis of one strategic issue facing selected company and identified in course 445B. Presentation of final reports and evaluation of student efforts by corporate personnel. S/U or letter grading.

Management—Full-Time MBA

Graduate Courses

401A–401B. Leadership Foundations. (1–1) Three-day residential format (course 401A) and lecture, three hours (course 401B). Managing and working with people, with emphasis on motivation and development of individuals, leadership and interpersonal relationships, and group dynamics in complex organizational settings. In Progress (401A) and letter (401B) grading.

402. Data and Decisions. (4) (Formerly numbered Management 402.) Lecture, three hours. Topics include probabilities, random variables (expectation, variance, covariance, normal random variables), decision trees, estimation, hypothesis testing, and multiple regression models. Emphasis on actual business problems and data. Letter grading.

403. Financial Accounting. (4) (Formerly numbered Management 403.) Lecture, three hours. Designed for graduate students. Introduction to fundamental financial accounting methods and procedures, with emphasis on financial statements. Provides basis for firm understanding of language of business—accounting. Letter grading.


408. Foundations of Finance. (4) (Formerly numbered Management 408.) Lecture, three hours. Introduction to managerial finance. Topics include time value of money, discounting and present values, valuation of bonds and stocks, risk and return, construction of optimal portfolios, capital budgeting, and weighted average cost of capital. Letter grading.

409. Organizational Behavior. (4) (Formerly numbered Management 409.) Lecture, three hours. Requires: courses 402, 403. Principles and decision analysis related to effective utilization of factors of production in manufacturing and nonmanufacturing activities for both intermittent and continuous systems. Production organizations, analytical models and methods, facilities design, and design of control systems for production operations. Letter grading.


Management—Fully Employed MBA

Graduate Courses

401. Leadership Foundations. (2) Three-day residential format. Managing and working with people, with emphasis on motivation and development of individuals, leadership and interpersonal relationships, and group dynamics in complex organizational settings. Letter grading.


408. Foundations of Finance. (4) Formerly numbered Management 408.) Lecture, three hours. Introduction to managerial finance. Topics include time value of money, capital structure, bankruptcy costs, valuation of bonds and stocks, risk and return, construction of optimal portfolios, capital budgeting, and weighted average cost of capital. Letter grading.


422. Applied Management Research. (8) Formerly numbered Management 445.) Fieldwork, eight hours. Must be taken in second year (or its equivalent for part-time students). Supervised study of an organization through case studies or consulting projects. Establishing client relationships, identification of problems or strategic questions, design of study, collection and analysis of data, development and reporting of implementable recommendations. Letter grading.

423A. Introduction to Applied Management Research. (Formerly numbered Management 444A.) Lecture and fieldwork. Introduces students to full-time MBA program. Students must be taken after completion of first year in program. Methods of organizational and strategic analysis to determine relationship of organization with its environment. In Progress grading (credit to be given only on completion of courses 423B and 423C). Letter grading.

423B-423C. Applied Management Research: Two-Quarter Plan. (4–4) Formerly numbered Management 444B-444C.) Fieldwork, four hours. Limited to full-time MBA program students. Must be taken after completion of first year in program. Projects include: (1) faculty-guided consulting project with private companies, nonprofit organizations, or government agencies, establishment of client relationships, identification of problems or strategic questions, design of study, collection and analysis of data, development and reporting of implementable recommendations. Letter grading.

426. Fieldwork in Organizations. (4) Formerly numbered Management 454.) Fieldwork, to be arranged. Preparation: completion of at least two terms of MBA program. Required of all full-time MBA students. Under direction of MBA program senior associate dean or other supervising faculty advisor, students perform fieldwork, drawing upon senior executive experience or fieldwork in organization as intern or fellow. Execution of predetermined assignment(s) pursuant to defined program of study that includes reporting and assessment of fieldwork. Preparation, combination of written or oral presentations and may include preparation of evaluations or consulting report correlating to defined program of study. S/U grading.

427A-427B. Global Access Program. (5–6) Formerly numbered Management 427A-427B.) Fieldwork, 60 hours. Requisites: courses 401, 402, 403, 405, 408, 409, 410, 411, 420. Limited to Fully Employed MBA program students. Must be taken in third year. Faculty-guided consulting project with international company or U.S. company with international project focus. Establishment of client relationships, identification of problems or strategic questions, design of study, collection and analysis of secondary and primary research data, development of comprehensive business plan, and formal presentation of findings and recommendations. In Progress (427A) and letter (427B) grading.

428A–428B. Business Creation Capstone. (6–4) Lecture, three hours; fieldwork, three hours. Limited to fully employed MBA program students. Designed for students interested in new business creation. Student teams work on business idea and develop comprehensive strategy for launching that business.FULLFILLS MBA comprehensive examination requirement. In Progress (428A) and letter (428B) grading.

Management—Global Executive MBA Asia-Pacific

Graduate Courses

402. Data Analysis and Management Decisions I. Under Uncertainty. (4) Formerly numbered Management 463.) Lecture, four hours. Limited to UCLA-NUS Executive MBA program students. Survey of statistical model building, with emphasis on managerial interpretations of statistical summary of data and on statistical decisions covered through multiple regression to support courses in finance and marketing that focus on fundamental approaches to decision making under uncertainty. Letter grading.


404. Negotiations Behavior. (4) Formerly numbered Management 482.) Lecture, three hours. Presentation of theoretical principles and concepts from psychology, sociology, and economics through lectures and readings, with focus primarily on improving practical negotiating skills through experiential learning (i.e., negotiations simulations). Participants learn to enhance their individual abilities in dyadic and group situations and to seize contexts for most effective application of these skills. Letter grading.

406A–406B. Strategic Leadership and Implementation. (2–2) Formerly numbered 406.) Lecture, three hours. Designed to address several fundamental aspects of leading complex organizations, with emphasis on important tasks of developing well-aligned, high-performance organizations and on challenges of leading change in organizations. Enables students to develop an integrated point of view on strategic leadership and to increase their awareness of themselves as leaders. In Progress (406A) and letter (406B) grading.
Management–Master of Science in Business Analytics

Graduate Courses


402. SQL and Basic Data Management. (2) Lecture, three hours. Limited to Master of Science in Business Analytics students. Introduction to Structured Query Language (SQL) syntax and concepts pertaining to data definitions, data manipulation, and data controls in relational databases using MySQL, and important concepts of data management including data analysis and modeling for relational database management systems (RDBMS). Letter grading.

Management–Master of Financial Engineering

Graduate Courses


405. Computational Methods in Finance. (4) Formerly numbered Management 237L.) Fieldwork, three to five students) project on global strategic issues designed to allow students to employ and enhance concepts learned in classroom. In Progress (445A and 445B) and letter (445C) grading.

406. Derivative Markets. (4) Formerly numbered Management 237D.) Lecture, three hours. Limited to Master of Financial Engineering program students. Introduction to derivative markets and basic concepts, models, and experiments of financial markets used in these markets. Derivatives are both exchange traded and over-counter securities. Derivative markets are world’s largest and most liquid. Organization and role of put and call option markets, futures and forward markets, and their interrelations, with emphasis on arbitrage relations, valuation, and hedging with derivatives. In addition, S/U or letter grading.


410. Applied Finance Project. (4) Formerly numbered Management 237N.) Fieldwork, four hours. Limited to Master of Financial Engineering program students. Applied quantitative finance project that explores one quantitative finance problem that might be met in practice and involves development or use of some tools developed in MFE program. S/U or letter grading.

411. Fieldwork/Research on Financial Engineering. (4) Formerly numbered Management 237L.) Fieldwork, four hours. Limited to Master of Financial Engineering program students. Supervised, nonpaid, or paid practical research experience or fieldwork in organization as intern or fellow. Execution of predetermined assignment(s) pursuant to defined program of study that may include formal coursework. May not be applied toward MFE degree requirements. S/U or letter grading.

412. Special Topics in Financial Engineering. (2 to 4) Formerly numbered Management 237M.) Lecture, three hours. Limited to Master of Financial Engineering program students. In-depth examination of problems or issues in one area of current concern in financial engineering. May be repeated for credit. S/U or letter grading.


408. Prescriptive Models and Data Analytics. (4) Lecture, three hours. Limited to Master of Science in Business Analytics students. Hands-on applied data analytics, including experimental design and analysis, regression analysis, and model design, and how to implement these approaches using statistical analysis software. Letter grading.


409. Competitive Analytics. (4) Lecture, three hours. Limited to Master of Science in Business Analytics students. How business analytics can be used to optimize internal processes and resources. Applications and cases that illustrate quantitative techniques and show how to build operational competitive edge based on business analytics. S/U or letter grading.

410. Customer Analytics. (4) Lecture, three hours. Limited to Master of Science in Business Analytics students. Analysis of customer data to make better marketing decisions using real-world cases, exercises, and projects to aggregate theories, frameworks, and methods. Estimation of demand-side models that describe consumer behavior and estimate aspects of consumers’ decision-making process. Introduction to marketing-mix models and consumer-choice models. S/U or letter grade.

411. Fieldwork/Research in Business Analytics. (4) Fieldwork, eight hours. Preparation: one term of Master of Science in Business Analytics program. Limited to Master of Science in Business Analytics students. Application of data analytics to examine competitive conditions in industry or market. S/U or letter grading.

412. Business Analytics Supervised Project. (4) Fieldwork, three hours. Limited to Master of Science in Business Analytics students. Hands-on applied analytics project that helps prepare students for career in quantitative analysis and data science by testing their ability to solve complex analytical business problems in real-world settings. Students hone their communications skills and delve deeply into interest of area by interacting with professionals. Students learn strategy, business consulting, entrepreneurship, business plan development, project management and analysis, market assessment, financial analysis, and planning. Letter grading.

413. Industry Seminar II. (2) Seminar, 90 minutes to three hours. Required of Master of Science in Business Analytics students. Industry guest speaker presentations. S/U or letter grading.

431. Internet Customer Analytics. (2) Lecture, three hours (five weeks). Limited to Master of Science in Business Analytics students. Focuses on strategies and tactical issues that come up after foundational stage, specifically those issues related to customer acquisition and customer retention. Introduction of analytics frameworks, data structures, and models needed to support best practices around these issues. S/U or letter grading.

432. Health Care Analytics. (2) Lecture, three hours (five weeks). Limited to Master of Science in Business Analytics students. Exploration of opportunities for improvement in clinical care systems and operations, using tools such as regression analysis, machine learning, and other techniques for operational challenges facing health care managers and techni- ques for improving efficiency in variety of health care settings. Introduction of data analytics and operations management in health care industry, and practical experience with developing quantitative tools and empirical analyses. S/U or letter grading.

433. Entertainment Analytics. (2) Lecture, three hours (five weeks). Limited to Master of Science in Business Analytics students. Introduction to business analytics in entertainment industry. Focus on movie studios, television, and online media. Entertainment and media executives have changed way they approach decision making as result of big data and analytics in last two years, including making greater use of specialized analytics tools; employing dedicated data insights team to team; and making decisions that rely on enhanced data analytics such as simulation, optimization, or predictive analytics. Examination of content as it is produced by studios and then goes from one stage to another, including in theater box- cast on television, and Internet. Analytics of providing content looking both at investment needed to produce and disseminate content, and how revenues are being maximized across content, including direct or indirect adoption of analytics. Letter grading.


435. Data Visualization. (2) Lecture, three hours (five weeks). Limited to Master of Science in Business Analytics students. Offers solid basis for working with data and for exploring discipline. Collection, visualization, and processing of big data through lectures, case studies, and intensive class project. Tableau and Python are used. Addresses both theoretical underpinning of domain and intensive applied computing component. S/U or letter grading.

436. Fraud Analytics. (2) Lecture, three hours (five weeks). Limited to Master of Science in Business Analytics students. How to build analytics side of fraud detection model systems. Covers all algorithmic aspects of solving fraud problem, in particular how to approach and design algorithmic solution. Focus on algorithmic development. Does not address software engineering aspects of building and fielding fraud solution. Topics covered are background for building real-time fraud detection systems and forensic accounting principles. S/U or letter grading.

437. Forecasting and Time Series. (2) Lecture, three hours (five weeks). Limited to Master of Science in Business Analytics students. Covers principal methods of time series data and forecasting that are applicable in many functional areas of business, including simple and multiple regression, seasonal decomposition, AutoRegressive Integrated Moving Average (ARIMA), vector autoregressive, dynamic linear, error correction models. Use of R, R Studio and its various packages for regression and time series econometrics analysis and forecasting models. S/U or letter grading.

438. Sports Analytics. (2) Lecture, three hours. Preparation: programming experience (Python), basic statistics. Discussion of theory, development, and application of application of analytics in sports for purposes of in-game strategy, player performance, team management, sports opera- tions, and fantasy competitions, among other topics. Lectures, laboratories, guest speakers from sports industry and academia, and culminating group project. S/U or letter grading.

Management–PhD

Graduate Courses

200. Economics of Decision. (4) (Formerly numbered Management 200A) Discussion, three hours. Pre- requisite: basic probability theory. Basics of single-person decision theory and introduction to noncooperative game theory. Examination in some detail of von Neu- mann-Morgenstern expected utility theory. Other topics in decision theory include subjective expected utility theory and departures from expected utility behavior. S/U or letter grading.

201A. Probability, Statistics, and Computational Methods for Economics. (4) (Formerly numbered Management 204A) Lecture, three hours. Designed for PhD students. Introduction to probabilistic, statistical, and computational tools needed for applied re- searchers in business fields. Probability theory, modes of convergence, hypothesis testing, Bayesian inference, R programming, linear algebra, numerical optimiza- tion, simulation methods, numerical integration. S/U or letter grading.

201B. Theory and Application of Regression Analy- sis. (4) (Formerly numbered Management 204B) Lecture, three hours. Recommended prerequisite: course 201A. Designed for PhD students. Introduction to gen- eral regression analysis. Linear model, maximum likelihood and asymptotic tests, endogeneity, instrumental variables, differences-in-differences, regression-dis- continued design, propensity, limited dependent variable models, introduction to panel data. S/U or letter grading.


202A-202B-202C. Accounting Workshops. (1–1–2) (Formerly numbered Management (229X-229Y-229Z) Lecture, two hours. Designed for PhD students. Intended to develop ability to critically evaluate research in fields relevant to study of accounting. Papers presented in colloquium format by leading scholars in ac- counting. Active participation and intellectual interchange encouraged through discussion of papers during colloquium. May be repeated for credit. S/U grading.

203A-203B. Research Topics in Finance. (2–2) (Formerly numbered Management 236A-236B) Seminar, three hours. Course 236A is requisite to 236B. De- signed for PhD students in their second through fourth year. Intended to help students bridge gap between coursework and research. Students select academic financial economics papers that they present, replic- ate, and critique. In Progress 203A) and S/U or letter (203B) grading.

204A-204B-204C. Finance Workshops. (1–1–2) (Formerly numbered Management 239X-239Y-239Z) Lecture, 90 minutes. Designed for PhD students. Intended to develop ability to critically evaluate financial re- search. Papers presented in colloquium format by leading scholars in finance. Active participation and intellectual interchange encouraged through discus- sion of papers in sessions prior to workshop, as well as during colloquium. May be repeated for credit. S/U grading.

205A-205B-205C. Seminars: Decisions, Opera- tions, and Technology Management Systems. (1–1–2) (Formerly numbered Management 243X-243Y- 243Z) Seminar, 90 minutes to three hours. Required of all PhD students in decisions, operations, and technol- ogy management. Student, faculty, and guest speakers present in colloquium format by leading scholars. May be repeated for credit. S/U or letter grading.

206A-206B-206C. Research Seminars: Manage- ment and Organizational Behavior. (1–1–2) (Formerly numbered Management 258X-258Y-258Z) Seminar, two hours. Designed for PhD students. De-
development of ability to critically evaluate research in fields relevant to study of problems or issues of current concern in management and organizational behavior. Papers presented in colloquium format by leading scholars in economics. Active participation and intellectual interchange encouraged throughout discussion of papers during colloquium. May be repeated for credit. S/U or letter grading.

207A-207B-207C. Workshops: Marketing. (1–1–2) (Formerly numbered Management 289X-289Y-289Z.) Lecture, three hours. Designed for PhD students. Development of ability to critically evaluate research in fields relevant to study of economics. Papers presented in colloquium format by leading scholars in management strategy and policy. Active participation and intellectual interchange encouraged throughout discussion of papers during colloquium. May be repeated for credit. S/U grading.

209A-209B-209C. Management Strategy and Policy Workshops. (1–1–2) (Formerly numbered Management 290X-290Y-290Z.) Lecture, three hours. Designed for PhD students. Emphasis on recent developments in strategy, political structure, and networks. Topics may include demography, organizational systems and organizational environments. Possible examination of mathematical expressions that encapsulate what can be learned from models. Letter grading.


237. Introduction to Financial Economics, (4) (Formerly numbered Management 239A). Lecture, three hours. Provides foundational material for analytical studies of financial markets. Emphasis is on continuous-time mathematics as applied to pricing of financial assets. S/U or letter grading.

238. Macroeconomics and Finance, (4) (Formerly numbered Management 239B). Lecture, three hours. Introduction to research frontier of dynamic and quantitative methods. Emphasis on critical evaluation of coefficients from multivariate exploratory research to organize and represent information; theory and research in psychology, anthropology, organization behavior, and economics, including topics such as careers, participation, negotiations, and technology/work systems. S/U or letter grading.

245. Research in Organizations, (4) (Formerly numbered Management 259C). Seminar, three hours. Designed for graduate students. Doctoral-level survey of major topics in organizational behavior, with focus on research that has characterized study of organizational systems and organizational environments. Topics may include demography, organizational change, organizational structure, and networks. Letter grading.

246. Theory in Marketing, (4) (Formerly numbered Management 269A). Lecture, three hours. Serves as mechanism to introduce students to development of theory and research in the field of marketing. Focus is on general topic of theory development and testing. Prepares students for conducting theoretically grounded research in marketing. S/U or letter grading.

247. Research in Marketing Management, (4) (Formerly numbered Management 269B). Lecture, three hours. Designed for PhD students. Study of research issues associated with marketing management decisions. Recent research in areas of strategic marketing, market segmentation, new product development, and technology/work systems. S/U or letter grading.

248. Quantitative Research in Marketing, (4) (Formerly numbered Management 269C). Lecture, three hours. Designed for PhD students in management and related fields. Students are assumed to have good background in marketing principles and to be familiar with probability, statistics, mathematical programming, and econometrics. Review of a range of quantitative models as applied in marketing research. S/U or letter grading.

249. Behavioral Research in Marketing, (4) (Formerly numbered Management 269D). Lecture, three hours. Designed for PhD students who are conducting research in consumer behavior or related areas. Empirical research in consumer behavior surveyed and critically evaluated from theoretical as well as practical perspectives. S/U or letter grading.

250. Special Research Topics in Marketing, (4) (Formerly numbered Management 269E). Lecture, three hours. Designed for PhD students. Advanced selected topics in marketing, with emphasis on thorough examination of prior research and theory. May be repeated for credit. S/U or letter grading.

M251. Research and Development Policy. (4) (Formerly numbered Management M292A.) (Same as Management 251.) Lecture, three hours. Critical evaluation of R&D policies. Emphasis is on long-term planning and preparation to analyze field data, and what to
Materials Science and Engineering BS

Capstone Major

The materials engineering program is designed for students who wish to pursue a professional career in the materials field and desire a broad understanding of the relationship between microstructure and properties of materials. Metals, ceramics, and polymers, as well as the design, fabrication, and testing of metallic and other materials such as oxides, glasses, and fiber-reinforced composites, are included in the course contents.

Learning Outcomes

The Materials Engineering major has the following learning outcomes:

- Application of knowledge of mathematics, natural science, and engineering to analysis of materials and other systems
- Learn and work independently
- Practice leadership and teamwork in and across disciplines
- Design of a system, component, or process to meet desired needs
- Effective oral, graphic, and written communication
- Identification, formulation, and solution of engineering problems

Materials Engineering Option

Preparation for the Major

Required: Chemistry and Biochemistry 20A, 20B, 20L; Civil and Environmental Engineering M20 or Computer Science 31 or Mechanical and Aerospace Engineering M20; Materials Science and Engineering 10, 90L; Mathematics 31A, 31B, 32A, 32B, 33A, 33B (or Mechanical and Aerospace Engineering 82); Physics 1A, 1B, 1C.

The Major

Required: Civil and Environmental Engineering 91 (or Mechanical and Aerospace Engineering 101), 108, Electrical and Computer Engineering 100, Materials Science and Engineering 104, 110, 110L, 120, 130, 131, 131L, 132, 143A, 150, 160; one upper-division mathematics course selected from Civil and Environmental Engineering 103, Electrical and Computer Engineering 102, Mathematics 132, Mechanical and Aerospace Engineering 123B, 123C, two laboratory courses (4 units) from Materials Science and Engineering 121L, 141L, 143L, 161L, or up to 2 units of 199; three technical breadth courses (12 units) selected from an approved list available in the Office of Academic and Student Affairs; two capstone design courses (Materials Science and Engineering 140A and 140B); and two major field elective courses (8 units) from Chemical Engineering CM114, Civil and Environmental Engineering 130, 135A, Electrical and Computer Engineering 2, 123A, 123B, Materials Science and Engineering C111, C112, 121, 122, 131, 161, 162, Mechanical and Aerospace Engineering 156A, 166C, plus at least one elective course (4 units) from Chemistry and Biochemistry 30A, 30AL, Electrical and Computer Engineering 131A, Materials Science and Engineering 254. Empirical Corporate Finance. (4) Lecture, three hours. Consideration of research on how information is processed in financial markets. Emphasis on classical models, as well as psychological approaches to stock price movements. Review of behavioral interpretations of trading behavior and price patterns in financial markets. S/U or letter grading.

Scope and Objectives

At the heart of materials science and engineering is the understanding and control of the microstructure of solids. Microstructure is used broadly in reference to electronic and atomic structure of solids—and defects within them—at size scales ranging from atomic bond lengths to airplane wings. The structure of solids over this wide range dictates their structural, electrical, biological, and chemical properties. The phenomenological and mechanistic relationships between microstructure and the macroscopic properties of solids are, in essence, what materials science is all about.

Materials engineering builds on the foundation of materials science and is concerned with the design, fabrication, and optimal selection of engineering materials that must simultaneously fulfill dimensional, property, quality control, and economic requirements.

The undergraduate program in the Department of Materials Science and Engineering leads to the BS degree in Materials Engineering. Students are introduced to the basic principles of metallurgy and ceramic and polymer science as part of the Materials Engineering major. The Chemistry/Materials Science major is offered by the Department of Chemistry and Biochemistry in the College of Letters and Science.

The department also has a program in electronic materials that provides a broad-based background in materials science, with opportunity to specialize in the study of those materials used for electronic and optoelectronic applications. The program incorporates several courses in electrical engineering in addition to those in the Materials Science curriculum.

The graduate program allows for specialization in one of the following fields: ceramics and ceramic processing, electronic and optical materials, or structural materials.

Undergraduate Study

The materials engineering program is accredited by the Engineering Accreditation Commission of ABET.

The Materials Engineering major is a designated capstone major. Students undertake two individual projects involving materials selection, treatment, and serviceability. Successful completion requires working knowledge of physical properties of materials and strategies and methodologies of using materials properties in the materials selection process. Students learn and work independently and practice leadership and teamwork in and across disciplines. They are also expected to communicate effectively in oral, graphic, and written forms.

Materials Science and Engineering / 553
Electronic Materials Option

Preparation for the Major

Required: Chemistry and Biochemistry 20A, 20B, 20L; Civil and Environmental Engineering 102 or Computer Science 31 or Mechanical and Aerospace Engineering M20; Materials Science and Engineering 10, 90L; Mathematics 31A, 31B, 32A, 32B, 33A, 33B (or Mechanical and Aerospace Engineering 82); Physics 1A, 1B, 1C.

Graduate Study

Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Division website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Graduate Degrees

The Department of Materials Science and Engineering offers Master of Science (MS) and Doctor of Philosophy (PhD) degrees in Materials Science and Engineering.

Materials Science and Engineering

Lower-Division Courses

10. Freshman Seminar: New Materials. (1) Seminar; one hour; outside study, two hours. Preparation: high school chemistry and physics. Not open to students with credit for course 104. Introduction to basic concepts of materials science and new materials vital to advanced technology. Microstructural analysis and various material properties discussed in conjunction with such applications as biomedical sensors, pollution control, and microelectronics. Letter grading.

13L. Cultural (Materials) Science Investigations in Art and Archaeology. (5) Laboratory, four hours; discussion, two hours; site visits, four hours; outside study, five hours. Focus on portable X-ray fluorescence (XRF) and electron microscopy; visit National Museum of Natural History, many paths of discovery at UCLA. P/NP grading.

110. Introduction to Materials Characterization A (Crystal Structure, Nanostructures, and X-Ray Scattering). (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Enforced prerequisite: course 104. Modern methods of materials characterization; fundamentals of crystallography; properties of X-rays, X-ray scattering; design of materials characterization procedures. Letter grading.

C111. Introduction to Materials Characterization B (Electron Microscopy). (4) (Formerly numbered 111L.) Lecture, four hours; discussion, one hour; outside study, seven hours. Characterization of microstructure and microchemistry of materials; transmission electron microscopy; reciprocal lattice, electron diffraction, stereographic projections; observation of direct and replica specimens; scanning electron microscopy: emissive and reflective modes; chemical analysis; electron optics of both instruments. Concurrently scheduled with course C211. Letter grading.

C110. Introduction to Materials Characterization A Laboratory. (2) Laboratory, four hours; outside study, two hours. Enforced prerequisite: course 111. Experimental techniques and analysis of materials through X-ray scattering techniques; powder method, crystal structure determination, high-resolution X-ray diffraction methods, and special projects. Letter grading.


120. Physics of Materials. (4) Lecture; four hours; discussion, one hour; outside study, seven hours. Enforced requisites: courses 104, 110 (or Chemistry 113A). Introduction to electrical, optical, and magnetic properties of solids. Free electron model, introduction to semiconductors, optical and electron microscopy, X-ray and electron spectroscopy, X-ray diffraction, infrared spectroscopy, reflectance spectroscopy and multispectral imaging spectroscopy, chromatography, design of archaeological and ethnographic materials characterization procedures. Letter grading.

121. Materials Science of Semiconductors. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Enforced prerequisite: course 120. Structure and properties of elemental and compound semiconductors. Electrical and optical properties; defect chemistry, and doping. Electronic materials analysis and characterization, including electrical, optical, and ion-beam techniques. Heterostructures, band-gap engineering, development of new materials for optoelectronic applications. Letter grading.

122. Materials Science of Semiconductors Laboratory. (2) Lecture, 30 minutes; discussion, 30 minutes; laboratory, two hours; outside study, three hours. Enforced prerequisite: quantum materials characterization, including measurements of contact resistance, dielectric constant, and thin film biaxial modulus and CTE. Letter grading.

Graduate Degrees

104. Science of Engineering Materials. (4) Lecture, three hours; discussion, one hour; outside study, eight hours. Requisites: Chemistry 20A, 20B, 29L; Physics 1A, 1B. General introduction to different types of materials used in engineering designs: metals, ceramics, plastics, and composites, relationship between structure (crystal and microstructure) and properties of technological materials. Illustration of their fundamental differences and their applications in engineering. Letter grading.

M105. Principles of Nanoscience and Nanotechnology. (4) (Same as Engineering M101.) Lecture, four hours; discussion, one hour; outside study, seven hours. Enforced requisites: Chemistry 20A, 20B, Physics 1C. Introduction to underlying science encompassing structures, properties, and fabrication of technologically important nanoscale systems. New phenomena that emerge in very small systems typically with feature sizes below few hundred nanome
122. Principles of Electronic Materials Processing. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Enforced requisite: course 104. Description of basic semiconductor materials for device processing; preparation and characterization of silicon, GaAs, and InP, and films. Discussion of principles of CVD, MOCVD, LPE, and MBE; metals and dielectrics. Letter grading.

130. Phase Relations in Solids. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Enforced requisite: course 130 or Chemistry 110A. Diffusion in metals and ionic solids, nucleation and growth theory; precipitation from solid solution, eutectoid decomposition, design of heat treatment processes of alloys, growth of intermediate phases, gas-solid reactions, design of oxidation-resistant alloys, recrystallization, and grain growth. Letter grading.

131L. Diffusion and Diffusion-Controlled Reactions Laboratory. (2, to 8) Lecture, one hour; discussion, one hour; outside study, five hours. Enforced requisite: courses 122, 143A, 143L, and 150. Properties, growth, and solid-state transformations of metals, design of heat treatment processes of alloys: precipitation hardening, alpha-priming, and beta-quenching. Letter grading.


140B. Materials Selection and Engineering Design B. (3) Formerly numbered 140J. Lecture, two hours; laboratory, two hours; outside study, five hours. Enforced requisite: course 140A. Explicit guidance among available materials for design in engineering. Properties and applications of steels, nonferrous alloys, polymeric, ceramic, and composite materials, coatings. Materials selection, treatment, and serviceability emphasized as part of successful design. Design projects. Letter grading.

141L. Computer Methods and Instrumentation in Materials Science. (2) Laboratory, four hours. Preparation: knowledge of BASIC or C or assembly language. Limited to junior/senior Materials Science and Engineering majors. Interface and control techniques, real-time data acquisition and processing, computer-aided thermodynamics. Letter grading.

143A. Mechanical Behavior of Materials. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Enforced requisite: course 104, Mechanical and Aerospace Engineering 101. Plastic flow of metals under simple and combined loading, strain rate and temperature effects, dislocations, fracture, microstructural effects, mechanical and thermal treatment of steel for engineering applications. Letter grading.

143L. Mechanical Behavior Laboratory. (2) Laboratory, four hours. Requisites: courses 90L, 143A may be taken concurrently. Methods of characterizing mechanical behavior of various materials: elastic and plastic deformation, fatigue, and creep. Letter grading.

150. Introduction to Polymers. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Polymerization mechanisms, molecular weight and distribution, chemical structure and bonding, structure crystallinity, and morphology and their effects on physical properties. Glassy polymers, spring polymers, elastomers, adhesives. Fiber forming polymers, polymer processing technology, plastication. Letter grading.


160. Introduction to Ceramics and Glasses. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Enforced requisite: courses 104, 130. Introduction to ceramics and glasses being used as important materials of engineering, processing techniques, and unique properties. Examples of design and control of properties for certain specific applications in engineering. Letter grading.

161. Processing of Ceramics and Glasses. (4) Lecture, four hours; discussion, one hour. Requisite: course 160. Study of processes used in fabrication of ceramics and glasses for structural applications, optical and electronic devices, and wear-resistant tools. Specific topics include modern techniques of powder synthesis, greenware forming, sintering, glass melting. Microstructure properties of ceramics, fracture analysis and design with ceramics. Letter grading.


162. Electronic Ceramics. (4) Lecture, four hours; outside study, eight hours. Requisites: course 104, Physics 1C. Utilization of ceramics in microelectronics; thick film and thin film resistors, capacitors, and substrates; design and processing of electronic ceramics and packaging; magnetic ceramics; ferroelectric ceramics and electro-optic devices; optical wave guides and devices. Letter grading.

163. Electrochemical Processes. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Requisites: course 104 or Mechanical and Aerospace Engineering 101. Fundamentals of electrochemistry and engineering applications to industrial electrochemical processes. Primary emphasis on fundamental approach to analyze electrochemical behavior of materials. Specific topics include electrochemical reactions on metal and semiconductor surfaces, electrodeposition, electroless deposition, electrolys, synthesis, fuel cells, aqueous and non-aqueous batteries, solid-state electrochemistry. May be concurrently scheduled with course CM263. Letter grading.

170. Engaging Elements of Communication: Oral Communication. (4) Lecture, four hours; discussion, one hour; outside study, four hours. Comprehensive oral presentation and communication skills provided by building on strengths of individual personal styles in creating and delivering presentations. Skill set prepares students for different types of academic and professional presentations for wide range of audiences. Learning environment is highly supportive and cooperative. In-class and take-home assignments. More emphasis on small group and one-on-one feedback. Letter grading.

171. Engaging Elements of Communication: Writing for Technical Community. (2) Lecture, one hour; discussion, one hour; outside study, four hours. Comprehensive technical writing skills on subjects specific to field of materials science and engineering. Students write review term paper in selected subject field of materials science and engineering from journal publications. Instruction leads students through several crucial steps, including brainstorming, choosing title, coming up with outline, concise writing of abstract, conclusion, and final polishing. Other subjects include writing style, word choices, and grammar. Letter grading.

CM115. Introduction to Biomaterials. (4) Same as Bioengineering CM178.) Lecture, three hours; discussion, two hours; outside study, seven hours. Requisites: course 104, or Chemistry 20A, 20B, and 20L. Engineering materials used in medicine and dentistry for repair and/or restoration of natural tissues. Topics include relationships between material properties, suitability to task, surface chemistry, processing and treatment methods, and biocompatibility. Concurrently scheduled with course CM280L. Letter grading.

188. Special Courses in Materials Science and Engineering. (4) Seminar, four hours; outside study, eight hours. Special topics in materials science and engineering for undergraduate students taught on experimental or temporary basis, such as those taught by resident and visiting faculty members. May be repeated for credit with topic or instructor change. Letter grading.

194. Research Group Seminars: Materials Science and Engineering. (4) Seminar, four hours; outside study, eight hours. Designed for graduate students who are part of research group. May be repeated for credit with research and literature in the field of research of faculty members or students. May be repeated for credit. Letter grading.

199. Directed Research in Materials Science and Engineering. (2 to 8) Tutorial, to be arranged. Limited to juniors/seniors. Supervised individual research or investigation under guidance of faculty mentor. Culminating reports or project required. Occasionally field trips may be arranged. May be repeated for credit with school approval. Individual contract required; enrollment petitions available in Office of Academic and Student Affairs. Letter grading.

Graduate Courses

200. Principles of Materials Science I. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Requisite: course 120. Lattice dynamics and thermal properties of solids; classical and quantized theory of motion of phonons; transport in semiconductors, dielectric and magnetic properties of solids. Letter grading.


211. Introduction to Materials Characterization B (Electron Microscopy). (4) Formerly numbered 211.) Lecture, four hours; outside study, eight hours. Characterization of microstructure and microchemistry of materials; transmission electron microscopy; recip-
ractical, electron diffraction, stereographic projection, direct observation of defects in crystals, replication; scanning electron microscopy; emissive and reflective modes; chemical analysis; electron optics of both instruments. Concurrently scheduled with course C111. Letter grading.


M213. Cultural Materials Science I: Analytical Imaging and Documentation in Conservation of Materials. (4) (Same as Conservation M215.) Lecture, two hours; laboratory, two hours. Basic and advanced techniques on digital photography, computer-aided recording tools, and scientific imaging to determine and document condition (defects) and technological features of archaeological and ethnographic materials. Development of basic theoretical knowledge on imaging and photons technology and practical skills on conservation photo-documentation, analytical (ferroresonance) photography, and advanced new imaging technologies. Letter grading.


221. Science of Electronic Materials. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Requires: course 120. Study of major physical and chemical principles affecting properties and performance of semiconductor devices. Topics include band structure, carrier statistics, band-gap engineering, optical and transport properties, novel materials systems, and characterization. Letter grading.

222. Growth and Processing of Electronic Materials. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Requires: courses 120, 130, and 131. Thermodynamics and kinetics that affect semiconductor growth and device processing. Particular emphasis on fundamentals of growth (bulk and epitaxial), heteroploy, implantation, oxidation. Letter grading.

223. Materials Science of Thin Films. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Requires: possesses basic knowledge of thin film deposition technologies. Study of properties and their aging characteristics. Science and application of semiconductors in photovoltaic devices, physical models of cell operation, characteristics and design of common types of solar cells, and approaches to increasing solar cell efficiency. Recent progress in solar cells, such as organic solar cells, thin-film solar cells, and tandem junction solar cells provided to increase student knowledge. Tour of research laboratory included. Letter grading.


226. Si-CMOS Technology: Selected Topics in Materials Science. (4) Lecture, three hours; discussion, one hour; outside study, eight hours. Recommended preparation: Electrical Engineering 221B. Requires: courses 130, 131, 200, 221, 222. Selected topics in materials science from modern Si-CMOS technology, including technological challenges in high k/metal gate stacks, strain engineering, and fundamental FETs, source/drain engineering including tran- sient-enhanced diffusion, nonvolatile memory, and metallization for contact lines. Letter grading.

246A. Mechanical Properties of Nonmetallic Crys- talline Solids. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Requires: course 160. Materials and environmental factors affecting mechanical properties of nonmetallic crystalline solids, including atomic scale structure, and atomic-scale defects, microstructural features, re- sidual stresses, temperature, stress state, strain rate, size and surface conditions. Letter grading.

246B. Structure and Properties of Glass. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Requires: course 160. Structure of amorphous solids and glasses. Conditions of glass formation and the glass structure. Mechanical, electrical, and optical properties of glass and relation- ship to structure. Letter grading.


247. Nanoscale Materials: Challenges and Oppor- tunities. (4) Lecture, four hours; discussion, eight hours. Recommended preparation: knowledge of up-to-date subjects in novel materials and their potential applications, including nanoscale materials and biomaterials. Letter grading.

248A. Conservation and Analysis of Solar Cells. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Comprehensive introduction to materials and physics of photovoltaic cell, covering basic physics of semiconductors in photovoltaic devices, physical models of cell operation, characteristics and design of common types of solar cells, and ap- proaches to increasing solar cell efficiency. Recent progress in solar cells, such as organic solar cell, thin-film solar cells, and tandem junction solar cells pro- vided to increase student knowledge. Tour of research laboratory included. Letter grading.


251. Chemistry of Soft Materials. (4) Lecture, four hours. Introduction to organic soft materials, including emulsions; basic organic chemistry, materials science, and chem- istry. Topics include three main categories of soft ma- terials: organic molecules, synthetic polymers, and biomolecules and biomaterials. Extensive description and discussion of structure-property relationships, spectroscopic and experimental techniques, and preparation methods for various soft materials. Letter grading.

252. Organic Polymer Electronic Materials. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Preparation: knowledge of introductory organic chemistry and polymer science. Introduction to organic electronic materials and their chemical and physical properties. Topics include conjugated polymers; highly doped, highly conducting polymers; applications as processable metals and in flexible, high-performance electronic devices. Synthesis of semiconductor polymers for or- ganic light-emitting diodes, solar cells, thin-film tran- sistors. Introduction to emerging field of organic elec- tronic materials and devices. Letter grading.

253. Biinspired Materials. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Broad overview of most recent advances in bioin- spired materials and biomaterials, covering natural materials, biomimicry, and bioinspired artificial ma- terials, with emphasis on synthesis, processing, hierarch- ical design, and assembly from nano- to macro- scale, properties and characterization, and real-life applications. Letter grading.
261. Risk Analysis for Engineers and Scientists. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Topics include definition and fundamental concepts of risk, sociotechnical context of risk assessment and risk management, perception and reduction of risk, risk-informed decision-making, domains of application (safety, health, security, economy, and environment), principal methods of risk assessment, including overview of probability and statistics, how to identify risk scenarios, techniques modeling, failures of complex systems (e.g., fault tree and event tree analysis), data collection and analysis, model integration and computational algorithms for risk calculation and identification of risk drivers, simulation approach to risk modeling, uncertainty analysis, examples of risk assessment of engineered systems (e.g., space and aviation, nuclear power, petro-chemical plants), other applications (risk of medical procedures, financial risk, natural hazards risk). Letter grading.

CM263. Electrochemical Processes. (4) (Same as Chemical Engineering CM214.) Lecture, four hours; discussion, one hour; outside study, seven hours. Requisites: course 130 (or Mechanical and Aerospace Engineering 105A), Chemical Engineering 102B. Fundamentals of electrochemistry and engineering applications of electrochemical processes. Primary emphasis on fundamental approach to analyze electrochemical processes. Specific topics include electrochemical reactions on metal and semiconductor, corrosion, passivation, electron deposition, electrolys synthesis, fuel cells, aqueous and non-aqueous batteries, solid-state electrochemistry. May be concurrently scheduled with course CM163. Letter grading.

270. Computer Simulations of Materials. (4) Lecture, four hours; outside study, eight hours. Introduction to modern methods of computational modeling in materials science. Topics include basic statistical mechanics, molecular dynamics, and Monte Carlo methods, with emphasis on understanding basic physical ideas and learning to design, run, and analyze computer simulations of materials. Use of examples from current literature to show how these methods can be used to study interesting phenomena in materials science. Hands-on computer experiments. Letter grading.

271. Electronic Structure of Materials. (4) Lecture, four hours; outside study, eight hours. Preparation: basic knowledge of quantum mechanics. Recommended requisite: course 202. Introductions to modern first-principles electronic structure calculations for various types of materials. Properties of electron and interatomic bonding in molecules, crystals, and liquids, with emphasis on practical methods for solving Schrödinger equation and using it to calculate physical properties such as elastic constants, equilibrium structures, binding energies, vibrational frequencies, electronic band gaps and band structures, properties of defects, surfaces, interfaces, and magnetism. Extensive hands-on experience with modern density-functional theory code. Letter grading.

272. Theory of Nanomaterials. (4) Lecture, four hours; outside study, eight hours. Strongly recommended requisite: course 200. Introduction to properties and applications of nanoscale materials, with emphasis on understanding basic principles that distinguish nanomaterials (with feature size below 100 nm) from microstructured materials. Explanation of new phenomena that emerge only in very small systems, using simple concepts from quantum mechanics and thermodynamics. Topics include structure, and electronic properties of quantum dots, wires, nanotubes, and multilayers, self-assembly on surfaces and in liquid solutions, mechanical properties of nanostructured metamaterials, molecular electronic devices, spintronics, and proposed realizations of quantum computing. Discussion of current and future directions of this rapidly growing field using examples from modern scientific literature. Letter grading

CM280. Introduction to Biomaterials. (4) (Same as Bioengineering CM278.) Lecture, three hours; discussion, two hours; outside study, seven hours. Requisites: course 104, or Chemistry 20A, 20B, and 20L. Engineering materials used in medicine and dentistry for repair and/or restoration of damaged natural tissues. Topics include relationships between material properties, suitability to task, surface chemistry, processing and treatment methods, and biocompatibility. Concurrently scheduled with course CM180. Letter grading.

282. Exploration of Advanced Topics in Materials Science and Engineering. (2) Lecture, one hour; discussion, one hour; outside study, four hours. Requisite: course 281. Exploration of advanced topics in materials science and engineering. Discussion of current research in materials science and engineering. Student groups present summary reviews of topics prior to lecture. Class discussions follow each presentation. May be repeated for credit. S/U grading.

296. Seminar: Advanced Topics in Materials Science and Engineering. (2) Seminar, two hours; outside study, four hours. Advanced study and analysis of current topics in materials science and engineering. Discussion of current research and literature in research specialty of faculty members teaching course. May be repeated for credit. S/U grading.

297B. Material Processing in Manufacturing. (4) (Same as Mechanical and Aerospace Engineering M297B.) Lecture, four hours; outside study, eight hours. Enforced requisite: Mechanical and Aerospace Engineering 183A. Thermodynamics, principles of material processing: phase equilibria and transitions, transport mechanisms of heat and mass, nucleation and growth of microstructure. Applications in casting, solidification, welding, consolidation, chemical vapor deposition, infiltration, composites. Letter grading.

M297C. Composites Manufacturing. (4) (Same as Mechanical and Aerospace Engineering M297C.) Lecture, four hours; outside study, eight hours. Requisites: course 151, Mechanical and Aerospace Engineering 166C. Matrix materials, fibers, fiber preforms, elements of processing, autoclave/compression molding, filament winding, pultrusion, resin transfer molding, automation, material removal and assembly, metal and ceramic matrix composites, quality assurance. Letter grading.

298. Seminar: Engineering. (2 to 4) Seminar, to be arranged. Limited to graduate materials science and engineering students. Seminars may be organized in advanced technical fields. If appropriate, field trips may be arranged. May be repeated with topical change. S/U grading.

375. Teaching Apprentice Practicum. (1 to 4) Seminar, to be arranged. Preparation: apprentice personnel employment as teaching assistant, associate, or fellow. Teaching apprenticehip under active guidance of a supervising faculty member responsible for curriculum and instruction at UCLA. May be repeated for credit. S/U grading.

596. Direct Individual or Tutorial Studies. (2 to 8) Tutorial, to be arranged. Limited to graduate materials science and engineering students. Petition forms to be concurrently scheduled with course CM180. Letter grading.

597. Preparation for MS Comprehensive Examination. (2 to 12) Tutorial, to be arranged. Limited to graduate materials science and engineering students. Reading and preparation for MS comprehensive examination. S/U grading.

597A. Preparation for MS Comprehensive Examination. (2 to 12) Tutorial, to be arranged. Limited to graduate materials science and engineering students. Reading and preparation for MS comprehensive examination. S/U grading.

597B. Preparation for PhD Preliminary Examination. (2 to 16) Tutorial, to be arranged. Limited to graduate materials science and engineering students. S/U grading.

597C. Preparation for PhD Oral Qualifying Examination. (2 to 16) Tutorial, to be arranged. Limited to graduate materials science and engineering students. Preparation for oral qualifying examination, including preliminary research on dissertation. S/U grading.


599. Research for and Preparation of PhD Dissertation. (2 to 16) Tutorial, to be arranged. Limited to graduate materials science and engineering students. Usually taken after students have been advanced to candidacy. S/U grading.

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**Mathematics / 557**

**Mathematics College of Letters and Science**

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**Mathematics**

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The Mathematics major is designed for students whose basic interest is mathematics. The Applied Mathematics major concerns applications of mathematics to the sciences, including the life, social and physical sciences, and engineering. The Financial Actuarial Mathematics major concerns the applications of mathematics to finance, the actuarial field, and related areas. The Mathematics of Computation major is for mathematics students who have a secondary interest in computing. The Mathematics/Applied Science major is for those with interest in the applications of mathematics to a particular outside field. The Mathematics for Teaching major is for students planning to teach mathematics at the high school level. As part of the Mathematics/Applied Science major, the department offers programs for students interested in the fields of mathematics/history of science and medical and life sciences.

Each course taken to fulfill any of the requirements for any of the mathematics majors must be taken for a letter grade.

The Mathematics for Teaching major is a designated capstone major. In their senior year students complete a year-long course sequence that culminates in a model lesson presentation, paper, and portfolio. Through their capstone work, students demonstrate their familiarity with research and current issues in mathematics education, as well as their capacities to problem solve; reason quantitatively, geometrically, and algebraically; construct viable arguments; critique others’ reasoning; and use tools strategically.

The Data Theory major is a designated capstone major. Students work in small teams to solve a large, open-ended data science problem for community or campus-based clients. Emphasis is placed on the development and theoretical support of a statistical or algorithmic approach. Alternatively, students may undertake research on the foundations of data science, studying advanced topics and writing a senior thesis.

**Preliminary Examination in Mathematics**

If students wish to enroll in Mathematics 1, 3A, 31A, or 31AL, they must pass the Mathematics Diagnostic Test.

For specific information about the online test, refer to the Schedule of Classes or the department website; or contact the Mathematics Student Services Office, 6235 Mathematical Sciences.

**Advanced Placement in Calculus**

Students who have taken the Advanced Placement (AP) Calculus AB Test and obtained a score of 5 receive 8 units of credit and Mathematics 31A, 31B equivalency; those with a score of 4 receive 4 units of credit and Mathematics 31A equivalency. They may petition for 31A, 31B equivalency, or they may take courses 31A or 31AL at UCLA, although they must still satisfy the course requirements (Mathematics Diagnostic Test). Students who take the BC Test and obtain a score of 4 receive 8 units of credit and Mathematics 31A, 31B equivalency; those with a score of 4 receive 4 units of credit and Mathematics 31A equivalency. They may petition for 31A, 31B equivalency, or they may take courses 31A or 31AL at UCLA, although they must still satisfy the course requisites (Mathematics Diagnostic Test). Students receiving a score of 4 or lower on the AP examination, 3 or lower on the BC examination, should consult with the undergraduate mathematics counselor prior to enrolling in a calculus course at UCLA.

**Credit Limitations**

Credit is given for at most one course in each of the following groups: (1) 3A, 31A, 31AL; (2) 3B, 31B, 31E; (3) 110A, 117; (4) 170A, 170E; (5) former course 174A, 174E.

Courses from only one of the following statistics sequences may be applied toward any mathematics major: (1) Statistics 100A or Mathematics 170A or 170E, 100B or (Mathematics 170S), 100C or (2) former Statistics 110A, 110B.

Mathematics 2 is not open for credit to students with credit for any course from Mathematics 110A through 119.

Mathematics 132 is not open for credit to students with credit for Physics 132.

Mathematics 151A is not open for credit to students with credit for Electrical and Computer Engineering 131A.

Mathematics 170A, 170E, and Statistics 100A are not open for credit to students with credit for Electrical and Computer Engineering 131A.

Mathematics 170S is not open for credit to students with credit for Statistics 100B.

Former Mathematics 174A and course 174E are not open for credit to students with credit for Economics 141.

For lower-division mathematics courses, students may not take or repeat a course for credit if it is a prerequisite for a more advanced lower-division course for which they already have credit. This applies in particular to the repetition of courses (e.g., if students wish to repeat Mathematics 31B, they must do so before completing course 32B; if students wish to repeat Mathematics 38 or 318 or 32A, they must do so before completing course 33A).

For upper-division mathematics courses, students may not take or repeat a course for credit if it is a prerequisite for a more advanced lower-division course for which they already have credit. This applies in particular to the repetition of courses (e.g., if students wish to repeat Mathematics 131A, they must do so before completing course 131B or 131BH).

Students may not receive credit for both a course and the honors version of that course (e.g., they may not receive credit for both Mathematics 131A and 131AH).

**Program in Computing Courses**

Program in Computing 1 is designed for students who wish a broad, general introduction to the topic of
courses or of any mathematics sequenced course more than once results in automatic dismissal from the major.  

**Freshman Students**  
To enter the major, students must petition after they have completed the six sequenced courses with a 2.5 minimum overall grade-point average, have completed one 12-unit term in residence in regular session at UCLA, are enrolled in UCLA regular session at the time of application, and before completing 160 quarter units.  

**Transfer Students**  
Transfer applicants to the Mathematics major with 90 or more units must complete as many of the following introductory courses as possible prior to admission to UCLA: two years of calculus for majors, one calculus-based physics (mechanics) course, one C++ programming course, and two courses from general chemistry for majors, economics, symbolic logic, and calculus-based physics. Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

After satisfying the preparation for the major requirements, students need to petition to enter the major at the Student Services Office after completing one 12-unit term in residence in regular session at UCLA, and while enrolled in UCLA regular session at the time of application.

The Major  
**Required:** Mathematics 110A, 110B, 115A, 120A, 131A, 131B, 132, and at least five elective courses from 106 through 199 and Statistics 100A through 102C. Each course must be taken for a letter grade. The 12 courses must be completed with a minimum overall grade-point average of 2.0, with grades of C– or better in Mathematics 115A and 131A.

Mathematics 115A is required of all majors and is intended to be the first upper-division course taken. It is strongly advised that students take Mathematics 115A as soon as the major is declared, if not earlier. 

**Applied Mathematics BS**  
**Learning Outcomes**  
The Applied Mathematics major has the following learning outcomes:

- Strong mathematical content knowledge of single and multivariate differential and integral calculus, and differential equations
- Ability to synthesize material, solve problems, and think abstractly
- Familiarity with linear algebra, techniques of proof, and foundations of real analysis
- Ability to perform basic computer programming, especially in C++

**Premajor**  
Students entering UCLA directly from high school or first-term transfer students who want to declare the major at the time they apply for admission are automatically admitted to the major.

Current UCLA students need to apply for the Applied Mathematics major by filing a petition with the Student Services Office in 6356 Mathematical Sciences. All students are identified as Applied Mathematics premajors until they satisfy the following minimum requirements for the major: (1) achieve grades of C or better in all premajor mathematics sequenced courses (Mathematics 31A or 31AL, 31B, 32A, 32B, 33A, 33B), (2) achieve a minimum 2.5 grade-point average in the calculus sequence with no more than two repeats, (3) complete one 12-unit term in residence in regular session at UCLA, (4) be enrolled in UCLA regular session at the time of application, and (5) file a petition to declare the major before completing 160 quarter units.

**Preparation for the Major**  
**Required:** Mathematics 31A or 31AL, 31B, 32A, 32B, 33A, 33B, Physics 1A, 1B, Program in Computing 10A, and one course from Chemistry and Biochemistry 20A, 20B, Physics 1C. Each course must be taken for a letter grade. The mathematics sequenced courses (Mathematics 31A or 31AL, 31B, 32A, 32B, 33A, 33B) are calculated separately from the other preparation for the major courses and must be completed with a minimum overall 2.5 grade-point average and a grade of C or better in each course. The other preparation courses must be completed with a minimum overall 2.0 grade-point average and a grade of C– or better in each course.

Repetition of more than two mathematics sequenced courses or of any mathematics sequenced course more than once results in automatic dismissal from the major.

**Freshman Students**  
To enter the major, students must petition after they have completed the six sequenced courses with a 2.5 minimum overall grade-point average, have completed one 12-unit term in residence in regular session at UCLA, are enrolled in UCLA regular session at the time of application, and before completing 160 quarter units.

Transfer Students  
Transfer applicants to the Applied Mathematics major with 90 or more units must complete as many of the following introductory courses as possible prior to admission to UCLA: two years of calculus for majors, two calculus-based physics courses, one C++ programming course, and one course from general chemistry for majors or calculus-based physics. Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

After satisfying the preparation for the major requirements, students need to petition to enter the major at the Student Services Office after completing one 12-unit term in residence in regular session at UCLA, and while enrolled in UCLA regular session at the time of application.
151A and 151B, probability and statistics—courses 170A and 170B, or Statistics 100A and 100B, differential equations—courses 134 and 135; four courses from 106 through 199 and Statistics 100A through 102C (appropriate courses from other departments may be substituted for some of the additional courses provided departmental consent is given before such courses are taken). Each course must be taken for a letter grade. The 12 courses must be completed with a minimum overall grade-point average of 2.0, with grades of C− or better in Mathematics 115A and 131A.

Mathematics 115A is required of all majors and is intended to be the first upper-division course taken. It is strongly advised that students take Mathematics 115A and 131A. It is strongly advised that students take Mathematics 115A and 131A as soon as the major is declared, if not earlier.

Data Theory BS

Capstone Major

Learning Outcomes

The Data Theory major has the following learning outcomes:

• Understanding of mathematical and statistical methodologies of most common methods of data science
• Ability to explain in writing, with examples, how concepts of statistics and mathematics together solve real-world problems involving data
• Skillfully manage data
• Development, comparison, and testing of data-driven models to solve problems
• Understanding and explanation of variability when fitting and interpreting models of real-world systems
• Carrying out of reproducible data analysis using accepted practices of research community
• Written and verbal communication of findings of analyses
• Identification of areas of active research in data science
• Insightfully address problems concerning ethics of data use and storage, including data privacy and security
• Demonstrated mastery of concepts and skills of machine learning, modeling and supervised learning, dimension reduction and unsupervised learning, and deep learning
• Demonstrated familiarity with numerous software tools used in statistical and data science work and research
• Demonstrated knowledge of mathematical foundations, including pure and applied linear algebra, basic analysis, probability, and optimization theory
• Study and evaluation of proofs of mathematical and statistical results employed in data theory
• Work effectively in a team on a data science problem
• Demonstrated eligibility for graduate study in applied mathematical science or statistical science

Premajor

Students entering UCLA directly from high school or first-term transfer students who want to declare the Data Theory premajor at the time they apply for admission are automatically admitted to the premajor. Students must visit the student services office of either the Mathematics Department or Statistics Department in order to petition to enter the major. All students are identified as Data Theory premajors until they satisfy the following minimum requirements for the major.

Preparation for the Major

Required: Mathematics 31A, 31B, 32A, 32B, 33A, 42, 115A; Program in Computing 10A; one course selected from Statistics 10, 12, 13, 15; Statistics 20, 21. Each course must be completed with a grade of C or better and an overall grade-point average of at least 2.7. All students must take Mathematics 42 at UCLA. The major is limited in size according to available resources.

Repetition of more than two mathematics or statistics sequenced courses or of any mathematics or statistics sequenced course more than once results in automatic dismissal from the major.

Freshman Students

To enter the major, students must petition after they have completed the preparation for the major courses. Students who have an overall grade-point average (GPA) of at least 3.3 in the preparation for the major courses, and have completed all preparation for the major courses before the fall quarter of their third year at UCLA, will be admitted to the major.

Students whose overall GPA is between 2.7 and 3.3, or who fail to complete the preparation courses before the fall quarter of their third year, are admitted only if space is available. All students must petition before they have earned 160 units, or by the winter quarter of their junior year, whichever comes first. Only grades for courses that are taken at the University of California, including UCLA summer schools, are counted for this GPA computation.

Transfer Students

Transfer applicants to the Data Theory major are admitted to the premajor. Applicants with 90 or more units must have completed the following by the end of their third year prior to entry to UCLA: two years of calculus for physical science and/or engineering majors, one linear algebra course, one C++ programming course, one statistics course.

Transfer students must have completed all preparation for the major coursework, and must have passed Mathematics 42, 115A, and at least 4 units of upper-division coursework required for this major, with at least a 3.3 GPA, in order to be eligible to petition to enter the major. Transfer students will be admitted to the major if they satisfy these requirements. Transfer students who fail to meet these criteria for automatic admission will be admitted only if resources allow. Transfer students must petition to enter the major no later than the spring quarter of their first year at UCLA.

Financial Actuarial Mathematics BS

Learning Outcomes

The Financial Actuarial Mathematics major has the following learning outcomes:

• Strong mathematical content knowledge of single and multivariate differential and integral calculus, and differential equations
• Demonstrated knowledge of how to synthesize material, solve problems, and think abstractly
• Familiarity with linear algebra, techniques of proof, and foundations of real analysis
• Working knowledge at the level needed to pass the examination of the first three preliminary actuarial examinations by the Society of Actuaries
• Strong content knowledge of the fourth and fifth preliminary examinations
• Familiarity with basic statistical analysis including probability distributions, random variables, survey sampling, testing, data summary, sums of squares principle, testing general linear hypothesis in regression, and inference procedures
• Ability to perform basic computer programming, especially in C++

Premajor

Students entering UCLA directly from high school or first-term transfer students who want to declare the Financial Actuarial Mathematics premajor at the time they apply for admission are automatically admitted to the premajor.

Current UCLA students need to apply for the Financial Actuarial Mathematics major by filing a petition with the Student Services Office in 6356 Mathematical Sciences. All students are identified as Financial
Actuarial Mathematics premajors until they satisfy the following minimum requirements for the major: (1) achieve grades of C or better in all premajor mathematics sequenced courses (Mathematics 31A, 31B, 32A, 32B, 33A, 33B, Program in Computing 10A) with a minimum 2.5 grade-point average and no more than two repeats, (2) achieve grades of C or better in all premajor economics courses (Economics 1, 2, 11, Management 1A, 1B) with a minimum 2.5 grade-point average and no more than one repeat, (3) complete one 12-unit term in residence in regular session at UCLA, (4) be enrolled in UCLA regular session at the time of application, and (5) file a petition to declare the major before completing 160 quarter units.

Preparation for the Major
Required: Mathematics 31A or 31AL, 31B, 32A, 32B, 33A, 33B, and one course selected from Mathematics 11N, 42, 61, 70; Economics 1, 2, 11, Management 1A, Program in Computing 10A, 10B or 16A. Each course must be taken for a letter grade. The economics preparation for the major courses (Economics 1, 2, 11, Management 1A) are calculated separately from the mathematics preparation for the major courses (Mathematics 11N or 42 or 61 or 70, 31A or 31AL, 31B, 32A, 32B, 33A, 33B, Program in Computing 10A, 10B or 16A). The economics preparation courses must be completed with a minimum overall 2.5 grade-point average and a grade of C or better in each course, as must the mathematics preparation courses.

Repetition of more than one economics preparation course, more than two mathematics preparation courses, or of any economics or mathematics preparation course more than once results in automatic dismissal from the major.

Freshman Students
To enter the major, students must petition after they have completed the six sequenced courses with a 2.5 minimum overall grade-point average, have completed one 12-unit term in residence in regular session at UCLA, are enrolled in UCLA regular session at the time of application, and before completing 160 quarter units.

Transfer Students
Transfer applicants to the Financial Actuarial Mathematics major with 90 or more units must complete as many of the following introductory courses as possible prior to admission to UCLA: two years of calculus for majors, one C++ programming course, one microeconomic theory course, one macroeconomics course, and two terms of accounting principle.

Transfer credit for any of the above is subject to department approval; consult with an undergraduate counselor before enrolling in any courses for the major.

Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

After satisfying the preparation for the major requirements, students need to petition to enter the major at the Student Services Office after completing one 12-unit term in residence in regular session at UCLA, and while enrolled in UCLA regular session at the time of application.

The Major
Required: Ten mathematics/statistics courses, including Mathematics 115A, 131A, 170E, 170S, 174E (or Economics 141 or Statistics C183), 177, 178A, 178B, 178C, 179; and two courses from Economics 101 through 199B, Statistics 100C. Each course must be taken for a letter grade. Transfer credit is subject to department approval; consult with an undergraduate counselor before enrolling in any courses for the major.

To graduate, the ten Mathematics Department courses must be completed with an overall grade-point average of 2.0, with grades of C— or better in Mathematics 115A and 131A, as must the two elective courses.

Mathematics 115A is required of all majors and is intended to be the first upper-division course taken. It is strongly advised that students take Mathematics 115A as soon as the major is declared, if not earlier.

Mathematics of Computation BS
Learning Outcomes
The Mathematics of Computation major has the following learning outcomes:

- Strong mathematical content knowledge of single and multivariate differential and integral calculus, and differential equations
- Ability to synthesize material, solve problems, and think abstractly
- Familiarity with linear algebra, techniques of proof, and foundations of real analysis
- Ability to perform basic computer programming, especially in C++

Premajor
Students entering UCLA directly from high school or first-term transfer students who want to declare the Mathematics of Computation premajor at the time they apply for admission are automatically admitted to the premajor.

Current UCLA students need to apply for the Mathematics of Computation major by filing a petition with the Student Services Office in 6356 Mathemati
cal Sciences. All students are identified as Mathematics of Computation premajors until they satisfy the following minimum requirements for the major: (1) achieve grades of C or better in all premajor mathematics sequenced courses (Mathematics 31A or 31AL, 31B, 32A, 32B, 33A, 33B), (2) achieve a minimum 2.5 grade-point average in the calculus sequence with no more than two repeats, (3) complete one 12-unit term in residence in regular session at UCLA, (4) be enrolled in UCLA regular session at the time of application, and (5) file a petition to declare the major before completing 160 quarter units.

Preparation for the Major
Required: Mathematics 31A or 31AL, 31B, 32A, 32B, 33A, 33B, 61, Physics 1A, 1B, Program in Computing 10A, 10B, 10C, and one course from Chemistry and Biochemistry 20A, 20B, Physics 1C. Each course must be taken for a letter grade. The mathematics sequenced courses (Mathematics 31A or 31AL, 31B, 32A, 32B, 33A, 33B) are calculated separately from the other preparation for the major courses and must be completed with a minimum overall 2.5 grade-point average and a grade of C or better in each course. The other preparation courses must be completed with a minimum overall 2.0 grade-point average and a grade of C— or better in each course.

Repetition of more than two mathematics sequenced courses or of any mathematics sequenced course more than once results in automatic dismissal from the major.

Freshman Students
To enter the major, students must petition after they have completed the six sequenced courses with a 2.5 minimum overall grade-point average, have completed one 12-unit term in residence in regular session at UCLA, are enrolled in UCLA regular session at the time of application, and before completing 160 quarter units.

Transfer Students
Transfer applicants to the Mathematics of Computation major with 90 or more units must complete as many of the following introductory courses as possible prior to admission to UCLA: two years of calculus for majors, one discrete structures course, two calculus-based physics courses, three programming courses, and one course from general chemistry for majors or calculus-based physics.

Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

After satisfying the preparation for the major requirements, students need to petition to enter the major at the Student Services Office after completing one 12-unit term in residence in regular session at UCLA, and while enrolled in UCLA regular session at the time of application.

The Major
Required: Eleven Mathematics Department courses, including Mathematics 115A, 131A, 131B or 132, 151A, 151B, and six courses from 106 through 199 and Statistics 100A through 101C; three upper-di
cision computer science courses (12 units). Each course must be taken for a letter grade. The 14 courses must be completed with a minimum overall grade-point average of 2.0, with grades of C— or better in Mathematics 115A and 131A.

Mathematics 115A is required of all majors and is intended to be the first upper-division course taken. It is strongly advised that students take Mathematics 115A as soon as the major is declared, if not earlier.
Mathematics/Applied Science BS

The Mathematics/Applied Science major is designed for students with a substantial interest in mathematics and its applications to a particular field. It is an individual major in that students, in consultation with a faculty adviser, design their own program. They may also select one of the established programs: mathematics/history of science plan or medical and life sciences plan. In the past, Mathematics/Applied Science majors have combined the study of mathematics with fields such as atmospheric and oceanic sciences, biochemistry, biology, chemistry, economics, geography, physics, psychology, and statistics.

Students interested in designing an individual program should meet with the undergraduate adviser, 6356 Mathematical Sciences, during their sophomore year. A proposed program is drawn up, then forwarded to the mathematics/applied science curriculum committee for approval. All programs must include the following preparation for the major and major courses.

Learning Outcomes

The Mathematics/Applied Science major has the following learning outcomes:

- Strong mathematical content knowledge of single and multivariate differential and integral calculus, and differential equations
- Familiarity with linear algebra, techniques of proof, and foundations of real analysis
- Ability to synthesize material, solve problems, and think abstractly
- Ability to perform basic computer programming, especially in C++
- Familiarity with basic statistical analysis including probability distributions, random variables, survey sampling, testing, data summary, sums of squares principle, testing general linear hypothesis in regression, and inference procedures

Premajor

Students entering UCLA directly from high school or first-term transfer students who want to declare the Mathematics/Applied Science premajor at the time they apply for admission are automatically admitted. Freshman Students who want to declare the Mathematics/Applied Science premajor at the Student Services Office after completing 160 quarter units.

Preparation for the Major

Required: Mathematics 31A or 31AL, 31B, 32A, 32B, 33A, 33B, Program in Computing 10A. Additional preparation, varying with the individual program, may be required. Each course must be taken for a letter grade. The mathematics sequenced courses (Mathematics 31A or 31AL, 31B, 32A, 32B, 33A, 33B) are calculated separately from the other preparation for the major courses and must be completed with a minimum overall 2.5 grade-point average and a grade of C or better in each course. The other preparation courses must be completed with a minimum overall 2.0 grade-point average and a grade of C– or better in each course.

Repetition of more than two mathematics sequenced courses or of any mathematics sequenced course more than once results in automatic dismissal from the major.

Freshman Students

To enter the major, students must petition after they have completed the six sequenced courses with a 2.5 minimum overall grade-point average, have completed one 12-unit term in residence in regular session at UCLA, are enrolled in UCLA regular session at the time of application, and before completing 160 quarter units.

Transfer Students

Transfer applicants to the Mathematics/Applied Science major with 90 or more units must complete as many of the following introductory courses as possible prior to admission to UCLA: two years of calculus for majors and one C++ programming course. Additional courses are required for each concentration plan.

Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

After satisfying the preparation for the major requirements, students need to petition to enter the major at the Student Services Office after completing one 12-unit term in residence in regular session at UCLA, and while enrolled in UCLA regular session at the time of application.

The Major

Required: Fourteen courses, seven in the Mathematics Department selected from Mathematics 106 through 199 and seven upper-division courses in a related field selected from one or two other departments. Each course must be taken for a letter grade. The seven Mathematics Department courses must be completed with a minimum overall grade-point average of 2.0, with grades of C– or better in Mathematics 115A and 131A, as must the six outside courses from history, philosophy, or physiological science.

Mathematics 115A is required of all majors and is intended to be the first upper-division course taken. It is strongly advised that students take Mathematics 115A as soon as the major is declared, if not earlier.

Medical and Life Sciences Plan

Preparation for the Major

Required: Mathematics 31A or 31AL, 31B, 32A, 32B, 33A, 33B, Chemistry and Biochemistry 20A, 20B, 20L, 30A, 30AL, Life Sciences 7A, 7B, 7C, Physics 1A, 1B, Program in Computing 10A. Each course must be taken for a letter grade. The mathematics sequenced courses (Mathematics 31A or 31AL, 31B, 32A, 32B, 33A, 33B) are calculated separately from the other preparation for the major courses and must be completed with a minimum overall 2.5 grade-point average and a grade of C or better in each course. The other preparation courses must be completed with a minimum overall 2.0 grade-point average and a grade of C– or better in each course.

Repetition of more than two mathematics sequenced courses or of any mathematics sequenced course more than once results in automatic dismissal from the major.

The Major

Required: Seven mathematics courses, including Mathematics 115A, 131A, 134, 170A, 170B, and one course from 110A through 199 and Statistics
100B through 101C, six outside courses, including Neuroscience M101A, M101B, and M101C, and three courses from Biostatistics 100A, Chemistry and Biochemistry CM166A, Computer Science CM186, Ecology and Evolutionary Biology CITPA, 133, 135, Life Sciences 107, Physiological Science 100, M135, and any additional upper-division course from these fields with consent of the administrative department and the Mathematics Department. Each course must be taken for a letter grade. The seven Mathematics Department courses must be completed with a minimum overall grade-point average of 2.0, with grades of C– or better in Mathematics 115A and 131A, as must the six outside courses.

Mathematics 115A is required of all majors and is intended to be the first upper-division course taken. It is strongly advised that students take Mathematics 115A as soon as the major is declared, if not earlier.

**Mathematics for Teaching**

**BS**

**Capstone Major**

The Mathematics for Teaching major is designed primarily for students planning to teach mathematics at the high school level. It provides exposure to a broad range of mathematical topics, especially those appropriate for the prospective teacher. Students planning to pursue graduate studies in mathematics or related fields are encouraged to enter the Mathematics, Applied Mathematics, or Mathematics of Computation major.

**Learning Outcomes**

The Mathematics for Teaching major has the following learning outcomes:

- Strong mathematical content knowledge
- Sound theoretical and practical background for mathematics expected to be taught in secondary schools
- Understanding of the importance of mathematical thinking to design teaching to imbue students with a problem-solving and analytical spirit
- Familiarity with pedagogical research and ability to apply it to classroom work
- Ability to effectively plan lessons
- Preparation and experience in different modes of instruction
- Ability to use mathematical sophistication to shape lessons
- Preparedness to recognize and respond to expected difficulties that arise in the classroom due to conceptual understanding and misunderstanding

**Premajor**

Students entering UCLA directly from high school or first-term transfer students who want to declare the Mathematics for Teaching premajor at the time they apply for admission are automatically admitted to the premajor.

Current UCLA students need to apply for the Mathematics for Teaching major by filing a petition with the Student Services Office in 6356 Mathematical Sciences. All students are identified as Mathematics for Teaching premajors until they satisfy the following minimum requirements for the major: (1) achieve grades of C or better in all premajor mathematics sequenced courses (Mathematics 31A, 31B, 32A, 32B, 33A, 33B), (2) achieve a minimum 2.5 grade-point average in the calculus sequence with no more than two repeats, (3) complete one 12-unit term in residence in regular session at UCLA, (4) be enrolled in UCLA regular session at the time of application, and (5) file a petition to declare the major before completing 160 quarter units.

**Preparation for the Major**

**Required:** Mathematics 31A or 31AL, 31B, 32A, 32B, 33A, 33B, 61, Physics 1A or 5A, Program in Computing 10A, and two courses from Chemistry and Biochemistry 20A, 20B, Physics 1B, 1C, 5B, 5C, Program in Computing 108 through 97. Each course must be taken for a letter grade. The mathematics sequenced courses (Mathematics 31A or 31AL, 31B, 32A, 32B, 33A, 33B) are calculated separately from the other preparation for the major courses and must be completed with a minimum overall 2.5 grade-point average and a grade of C or better in each course. The other preparation courses must be completed with a minimum overall 2.0 grade-point average and a grade of C– or better in each course.

Repetition of more than two mathematics sequenced courses or of any mathematics sequenced course more than once results in automatic dismissal from the major.

**Freshman Students**

To enter the major, students must petition after they have completed the six sequenced courses with a 2.5 minimum overall grade-point average, have completed one 12-unit term in residence in regular session at UCLA, are enrolled in UCLA regular session at the time of application, and before completing 160 quarter units.

**Transfer Students**

Transfer applicants to the Mathematics for Teaching major with 90 or more units must complete as many of the following introductory courses as possible prior to admission to UCLA: two years of calculus for majors, one discrete structures course, one C++ programming course, and three courses from calculus-based physics, general chemistry for majors, and computing.

Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

After satisfying the preparation for the major requirements, students need to petition to enter the major at the Student Services Office after completing one 12-unit term in residence in regular session at UCLA, and while enrolled in UCLA regular session at the time of application.

**The Major**

**Required:** Mathematics 106, 110A or 117, 115A, 120A or 123, 131A, 170A or Statistics 100A, Statistics 100B, one course from Mathematics 110B through 191H or Statistics 100C, one course from Mathematics 131B through 136, one course from 142 through 167, and a capstone series in the senior year (courses 105A, 105B, 105C). Each course must be taken for a letter grade. The 13 courses must be completed with a minimum overall grade-point average of 2.0, with grades of C– or better in Mathematics 115A and 131A.

Mathematics 115A is required of all majors and is intended to be the first upper-division course taken. It is strongly advised that students take Mathematics 115A as soon as the major is declared, if not earlier.

**Honors**

**Honors Courses**

The department offers a lower-division honors sequence in calculus, and upper-division honors sequences in algebra and analysis. The sequences are intended for students (not necessarily mathematics majors) who desire a broad, comprehensive introduction to these topics.

**Honors Program**

Students majoring in Mathematics, Applied Mathematics, and Mathematics of Computation who wish to graduate with departmental honors should apply for admission to the honors program in the Student Services Office. They may apply any time after completing four courses from the calculus sequence or from upper-division mathematics courses with an overall grade-point average of 3.6 or better. The program entails taking a specified sequence of courses as part of the major requirements, completing an approved seminar offered by the Mathematics Department or submitting an original research project, and earning an overall GPA of at least 3.6 in approved upper-division and graduate mathematics courses.

Students completing the program are awarded honors at graduation; if they demonstrate exceptional achievement (i.e., at least a 3.8 GPA in upper-division mathematics courses taken for the major), they are awarded highest honors. Contact the department for more information.

**Computing Specialization**

Majors in Mathematics, Applied Mathematics, Financial Actuarial Mathematics, Mathematics/Computer Science, or Mathematics for Teaching may select a specialization in Computing by (1) satisfying all the requirements for a bachelor’s degree in the specified major and (2) completing Mathematics 61 or 180, Program in Computing 10A, 108, two courses from 10C, 15, 16A, 20A, 20B, 30, 40A, 60, and at least two courses from Mathematics 149 through 199, with a minimum grade of C– in each course and a combined grade-point average of at least 2.0. Students must petition for admission to this program and are advised to do so after they complete Program in Computing 108 petitions should be filed in the Student Services Office. Students graduate with a bachelor’s degree in their major and a specialization in Computing.
Subject Matter Preparation Program for Single-Subject Credential in Mathematics

Students interested in obtaining a single-subject secondary school credential in mathematics should consult with a departmental counselor regarding the requirements for a waiver from the Mathematics California Subject Examination for Teachers (CSET), which is required by the California Commission on Teacher Credentialing. Students should meet with a departmental counselor as early as possible because the program does require additional courses beyond the major requirements. See the Curtis Center website for details on teaching credential requirements. For additional information, contact the Education Department credentialing specialist at 310-825-8228.

Mathematics Minor

The Mathematics minor is designed to provide students with the opportunity to widen their background and general comprehension of the role of mathematics in various disciplines. To enter the minor, students must have completed all of the lower-division minor courses with grades of C– or better (an overall grade-point average of 2.0 or better) and at least one upper-division mathematics course.

Required Lower-Division Courses (12 units): Mathematics 2A, 3A, 3B.

Required Upper-Division Courses (20 units): At least five courses (20 units) selected from Mathematics 106 through 199. A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor.

Each minor course must be taken for a letter grade. Students must complete all lower-division courses with grades of C– or better. Upper-division courses must have an overall grade-point average of 2.0 or better that is calculated separately from the lower-division courses. Successful completion of the minor is indicated on the transcript and diploma.

Graduate Study

Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Division website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Graduate Degrees

The Department of Mathematics offers the Master of Arts in Teaching (MAT) degree in Mathematics, and Master of Arts (MA) Candidate in Philosophy (CPHil), and Doctor of Philosophy (PhD) degrees in Mathematics.

Mathematics

Lower-Division Courses

1. Precalculus. (4) Lecture, three hours; discussion, one hour. Preparation: three years of high school mathematics. Finite mathematics consisting of matrices, Gauss/Jordan method, combinatorics, probability, Bayes theorem, and Markov chains. P/NP or letter grading.

2. Finite Mathematics. (4) Lecture, three hours; discussion, one hour. Preparation: three years of high school mathematics (including some coordinate geometry and trigonometry). Required: successful completion of Mathematics Diagnostic Test or course 1 with grade of C– or better. Not open for credit to students with credit for course 31B. Introduction to finite mathematics with emphasis on applications to social sciences and business; topics include set theory, counting techniques, probability, Bayes’ theorem, and Markov chains. P/NP or letter grading.

3A. Calculus for Life Sciences Students. (4) Lecture, three hours; discussion, one hour. Preparation: course 31A with grade of C– or better. Multivariable modeling, matrices and vectors, eigenvalues and eigenvectors, linear and non-linear systems of differential equations, proofs, probabilistic applications of integration. P/NP or letter grading.

3B. Calculus for Life Sciences Students. (4) Lecture, three hours; discussion, one hour. Preparation: course 3A with grade of C– or better. Simple applications of differentiation, integration, differential equations, linear models in biology, phase lines and classifying equilibrium values, bifurcations. P/NP or letter grading.

3C. Ordinary Differential Equations with Linear Algebra for Life Sciences Students. (4) Lecture, three hours; discussion, one hour. Preparation: course 3B with grade of C– or better. Multivariable modeling, matrices and vectors, eigenvalues and eigenvectors, linear and non-linear systems of differential equations, proofs, probabilistic applications of integration. P/NP or letter grading.

11N. Gateway to Mathematics: Number Theory. (4) Lecture, three hours; discussion, one hour. Preparation: prerequisite: course 31A with grade of C– or better. Not open for credit to students with credit for course 31A. Introduction to number theory, congruences, cryptography, and applications of number theory to modern coding theory. P/NP or letter grading.


11B. Integration and Infinite Series. (4) Lecture, three hours; discussion, one hour. Preparation: course 31A with grade of C– or better. Not open for credit to students with credit for course 31B. Transcendental functions; sequences and series. P/NP or letter grading.


11H. Integration and Infinite Series (Honors). (4) Lecture, three hours; discussion, one hour. Preparation: prerequisite: course 31A with grade of B or better. Introduction to the theory of infinite series. P/NP or letter grading.

31A. Differential and Integral Calculus. (4) Lecture, three hours; discussion, one hour. Preparation: course 31N or course 1 with grade of C– or better. Functions, limits, continuity, derivatives, applications of differentiation, integration, techniques of integration, the Fundamental Theorem of Calculus. P/NP or letter grading.

31B. Advanced Calculus. (4) Lecture, three hours; discussion, one hour. Preparation: course 31A with grade of C– or better. Linear vector spaces, calculus for functions of several variables, optimization, constrained optimization. P/NP or letter grading.

31C. Calculus for Economics Students. (4) Lecture, three hours; discussion, one hour. Preparation: prerequisite: course 31A with grade of C– or better. Not open for credit to students with credit for course 3B, 3C, or 31B. Calculus for applications to economics. Partial differentiation, implicit functions, exponential and logarithmic functions, calculus for finance. P/NP or letter grading.

32A. Calculus of Several Variables. (4) Lecture, three hours; discussion, one hour. Preparation: prerequisite: course 31A with grade of C– or better. Introduction to multi-variable calculus. P/NP or letter grading.
33AH-32BH. Calculus of Several Variables (Honors). (4) Lecture, three hours; discussion, one hour. Enrolled for course 32AH: course 31A with grade of B or better; for 32BH: courses 31B and 32A, with grades of B or better. Honors sequence parallel to courses 32A, 32B, or 32M. Letter grading.

32B. Calculus of Several Variables. (4) Lecture, three hours; discussion, one hour. Enrolled requisites: courses 31B and 32A, with grades of C– or better. Introduction to integral calculus of several variables, line and surface integrals, and the ideas of vector fields and theorems of Green, Stokes, and Divergence. Prerequisites: courses 31A, 31B, 32A, or 32B. Designed for life sciences students. Methods and results of single and multivariable calculus essential for quantitative training in biology. Limits, differentiation (single and several variables), optimization, integration and methods of integration, Taylor polynomials and applications to approximation, Taylor and other power series, vector valued functions, gradients, and Lagrange multipliers. P/NP or letter grading.


33AH. Linear Algebra and Applications (Honors). (4) Lecture, three hours; discussion, one hour. Enrolled requisites: course 3B or 31B or 32A with grade of B or better. Honors course parallel to course 33A. P/NP or letter grading.

33B. Differential Equations. (4) Lecture, three hours; discussion, one hour. Enrolled requisites: course 31B with grade of C– or better. Highly recommended: course 33A. First-order, linear differential equations; second-order, linear differential equations with constant coefficients; power series solutions; linear systems. P/NP or letter grading.

33BX. Workshop in Infinite Series and Differential Equations. (1) Discussion, one hour. Corequisite: course 33B. Supplementary techniques and applications for problems in infinite series and differential equations. Limits of investigation set by individual instructor. P/NP grading.


61. Introduction to Discrete Structures. (4) Lecture, three hours; discussion, one hour. Enrolled requisites: courses 31A, 31B. Not open for credit to students with credit for course 180 or 184. Discrete structures commonly used in computer science and mathematics, including sets and relations, permutations and combinations, graphs, and trees. Prerequisite: course 115A. P/NP or letter grading.

70. Introduction to Probability. (4) Lecture, three hours; discussion, one hour. Enrolled requisites: courses 31A, 31B. Introduction to probability through applications and examples. Topics include laws of large numbers, statistical independence, conditional probability, Bayes' rule, continuous and discrete random variables, jointly distributed random variables, multivariate normal and conditional distributions. In-depth discussion of betting schemes in gambling, occurrence of rare events, coincidences, and statistical predictions. P/NP or letter grading.

71SL. Classroom Practices in Elementary School Mathematics. (2) Seminar, three hours; fieldwork, three hours. Introduction for prospective mathematics teachers to field of secondary education teaching and learning of mathematics in elementary school classrooms. Pairs of students are placed in local elementary school classrooms to observe, participate, and assist mentor teachers in instruction. Discussion of learning culture and cognitive development of students at this level, and best means to teach appropriate mathematics concepts at this level. P/NP grading.

72SL. Classroom Practices in Middle School Mathematics. (2) Seminar, 90 minutes; fieldwork, two and one half hours. Enrolled requisites: courses 31A and 31B, with grades of C– or better. Introduction for prospective mathematics teachers to field of secondary education teaching and learning of mathematics in middle school classrooms. Pairs of students are placed in local middle school classrooms to observe, participate, and assist mentor teachers in instruction. Discussion of learning culture and cognitive development of students at this level, and best means to teach appropriate mathematics concepts at this level. P/NP grading.

73SL. Key Issues in K-12 Mathematics. (3) Seminar, two hours; discussion, one hour. Introduction to K-12 mathematics activity in U.S. Cultivation of interest in teaching through exploration of sequences of mathematical content and habits of mind taught in K-12. Analysis of discussions in current California State Standards in Mathematics (CCSS-M), mathematical structures that underlie these sequences, and cognitive aspects of learning mathematics. Examination of professional mathematics teachers’ habits of mind outlined in CCSS-M (including proof and mathematical modeling), and effective strategies for teaching mathematics to diverse student groups. Fieldwork in local mathematics classroom arranged by Cal Teach program. P/NP grading.

74SL. Mathematics and Pedagogy for Teaching Elementary Mathematics. (3) Seminar, two hours; discussion, one hour. Development of intuition and teaching and learning of mathematics in elementary school classrooms. Pairs of students are placed in local elementary school classrooms to observe, participate, and assist mentor teachers in instruction. Discussion of learning culture and cognitive development of elementary-age children as it relates to introduction of concept, curriculum planning, classroom management, and learning assessment. P/NP grading.

97. Variable Topics in Mathematics. (4) Lecture, three hours; discussion, one hour. Study of selected topics in mathematics at introductory level. P/NP or letter grading.

98XA. PEERS Collaborative Learning Workshops for Life Sciences Majors. (1) Laboratory, three hours. Corequisite: associated course in mathematics for life sciences majors. Limited to Program for Excellence in Education and Research in Science (PEERS) students. Development of intuition and problem-solving skills in collaboration and in learning environment. May be repeated four times, but only 1 unit may be applied toward graduation. P/NP grading.

98XB. PEERS Collaborative Learning Workshops for Physical Sciences and Engineering Majors. (1) Laboratory, three hours. Corequisite: associated undergraduate course in mathematics for physical sciences and engineering majors. Limited to Program for Excellence in Education and Research in Science (PEERS) students. Development of intuition and problem-solving skills in collaborative learning environment. May be repeated four times, but only 1 unit may be applied toward graduation. P/NP grading.

99. Student Research Program. (1 to 2) Tutorial (supervised research or other scholarly work), three hours per week per unit. Entry-level research for lower-division students under guidance of faculty mentor. Students must be in good academic standing and enrolled in minimum of 12 units (excluding this course). Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP grading.

Upper-Division Courses

General and Teacher Training

100. Problem Solving. (4) Lecture, three hours. Requires: course 31B with grade of C– or better. Problem-solving techniques and practice useful as preparation for Putnam Examination and similar competitions. Continued fractions, inequalities, modular arithmetic, closed form evaluation of sums and products, problems in geometry, rational functions and polynomials, other nonlinear problems. Participants expected to take Putnam Examination. P/NP grading.

101. Advanced Problem Solving. (4) Lecture, three hours. Requires: course 100 or significant experience with mathematical competitions. Enrollment based on one selection test or Putnam results. Advanced problem solving techniques and mathematical topics useful for preparation for Putnam Examination. Problems in abstract algebra, linear algebra, number theory, combinatorics, probability, real and complex analysis, differential, equations, Fourier analysis. Regular practice tests given, similar in difficulty to Putnam competition. May be repeated for maximum of 12 units. P/NP or letter grading.

103A. Mathematics and Pedagogy for Teaching Middle School Mathematics. (2) Seminar, one hour; fieldwork (classroom observation and participation), two hours. Requires: course 115A. Course 103A is enforced requisite to 103B, which is enforced requisite to 103C. Facilitates student development in mathematical and pedagogical understandings required to teach middle school mathematics curriculum. Exploration of California’s grades 6 through 8 mathematics from professional perspective, practice with effective teaching strategies for middle school. Problems in algebra, functions, number sense, and probability. Development of intuition and teaching and learning of mathematics in middle school classrooms. P/NP (undergraduates) or S/U (graduates) grading.

103B. Observation and Participation: Mathematics Instruction. (2) Seminar, classroom practice (classroom observation and participation), two hours. Enrolled requisite: course 103A. Observation, participation or tutoring in mathematics classes at middle school and secondary levels. May be repeated for credit. P/NP (undergraduates) or S/U (graduates) grading.

103C. Observation and Participation: Mathematics Instruction. (2) Seminar, classroom practice (classroom observation and participation), two hours. Enrolled requisite: course 103B. Observation, participation, or tutoring in mathematics classes at middle school...
school and secondary levels. May be repeated for credit. P/NP (undergraduates) or S/U (graduates) grading.

105A. Mathematics and Pedagogy for Teaching Secondary School Mathematics. (4) Lecture, four hours; discussion, three hours. Requisites: courses 110A or 117, 120A (or 123), and 131A, with grades of C– or better. Course 105A is required to 105B, which is required to 105C. Mathematical knowledge and research-based pedagogy needed for teaching key geometric topics in secondary school, including axiomatic systems, measure, and geometric transformations. Introduction to professional standards and current research for teaching secondary school mathematics. Letter grading.

105B. Mathematics and Pedagogy for Teaching Secondary School Mathematics. (4) Lecture, four hours; fieldwork, 30 minutes. Requisites: courses 105A, 110A (or 117), 120A (or 123), and 131A, with grades of C– or better. Mathematical knowledge and research-based pedagogy needed for teaching key geometric topics in secondary school, including axiomatic systems, measure, and geometric transformations. Introduction to professional standards and current research for teaching secondary school mathematics. Letter grading.

105C. Mathematics and Pedagogy for Teaching Secondary School Mathematics. (4) Lecture, four hours; fieldwork, 30 minutes. Requisites: courses 105A, 105B, 110A (or 117), 120A (or 123), and 131A, with grades of C– or better. Mathematical knowledge and research-based pedagogy needed for teaching key geometric topics in secondary school, including axiomatic systems, measure, and geometric transformations. Introduction to professional standards and current research for teaching secondary school mathematics. Letter grading.

106. History of Mathematics. (4) Lecture, three hours; discussion, one hour. Requisites: courses 31A, 31B, 32A. Roots of modern mathematics in ancient Babylonia and Greece, including place value number systems and proof. Development of algebra through Middle Ages to Fermat and Abel, invention of analytic geometry and calculus. Selected topics. P/NP or letter grading.

Algebra, Number Theory, and Logic

110A-110B. Algebra. (4-4) Lecture, three hours; discussion, one hour. P/NP or letter grading. 110A. Requisite: course 115A. Not open for credit to students with credit for course 117. Ring of integers, integral domains, unique factorization, groups. 110B. Requisite: course 110A or 117. Groups, structure of finite groups.

110AH-110BH. Algebra (Honors). (4-4) Lecture, three hours; discussion, one hour. Honors sequence parallel to courses 110A, 110B.

110C. Algebra. (4) Lecture, three hours; discussion, one hour. Requisites: courses 110A, 110B. Field extensions, Galois theory; applications to geometric constructions, and solvability by radicals.

111. Theory of Numbers. (4) Lecture, three hours; discussion, one hour. Requisite: courses 110A. Algorithmic number theory (including prime ideal theory), cyclotomic fields and reciprocity laws, Diophantine equations (especially quadratic forms, elliptic curves), equations over finite fields, topics in theory of primes, including prime number theorem and Dirichlet's theorem. P/NP or letter grading.

114C. Combinatorics (Honors). (4) Lecture, three hours; discussion, one hour. Requisite: course 110A or 131A or Philosophy 135. Effectively calculable, Turing computable, and recursive functions; Church/Turing thesis. Normal forms, universal functions; unsolvability and undeciendability results. Recursive and recursively enumerable sets; relative recursiveness, polynomial-time computability. Arithmetical hierarchy. P/NP or letter grading.

114L. Mathematical Logic. (4) Lecture, three hours; discussion, one hour. Requisite: course 110A or 131A or Philosophy 135. Introduction to mathematical logic, aiming primarily at completeness and incompleteness theorems of Godel, Propositional and predicate logic; syntax and semantics; formal deduction; completeness, compactness, and Lowenheim/Skolem theorems. Formal number theory: nonstandard models; Godel incompleteness theorem. P/NP or letter grading.

M114S. Introduction to Set Theory. (4) Same as Philosophy M134. Lecture, three hours; discussion, one hour. Requisite: course 110A or 131A or Philosophy 135. Axiomatic set theory as framework for mathematical concepts; relations and functions, numbers, cardinality, axiom of choice, transfinite numbers. P/NP or letter grading.

115A-115B. Linear Algebra. (5-4) P/NP or letter grading. 115A. Lecture, three hours; discussion, two hours. Requisite: course 33A. Techniques of proof, abstract vector spaces, linear transformations, and matrices; determinants; eigenvalues; eigenvectors and eigenspaces. 115B. Lecture, three hours; discussion, one hour. Requisite: course 115A. Linear transformations, conjugate spaces, duality; theory of a single linear transformation. Jordan normal form; bilinear forms, quadratic forms; Euclidean and unitary spaces, symmetric skew and orthogonal linear transformations, polar decomposition.

115AH. Linear Algebra (Honors). (5) Lecture, three hours; discussion, two hours. Requisite: course 33A with grade of B or better. Honors course parallel to course 115A. P/NP or letter grading.

115AX-115BX. Workshops in Linear Algebra. (1–1) Discussion, one hour. Corequisite for course 115AX: course 115B, for course 115BX: Supplementary techniques and applications for solving problems in linear algebra. Limits of investigation set by individual instructor. P/NP grading.

115HX. Workshop in Linear Algebra (Honors). (1) Discussion, one hour. Corequisite: course 115AH. Honors course parallel to course 115AX. P/NP or letter grading.

116. Mathematical Cryptology. (4) Lecture, three hours; discussion, one hour. Requisite: course 115A. Not open for credit to students with credit for Program in Computing 130. Introduction to mathematical cryptology using methods of number theory, algebra, probability. Topics include symmetric and public-key cryptosystems, one-way functions, signatures, key exchange, groups, primes, pseudoprimes, primality tests, quadratic reciprocity, factoring, rho method, RSA, discrete logs, P/NP or letter grading.

117. Algebra for Applications. (4) Lecture, three hours; discussion, one hour. Requisite: course 115A. Not open for credit to students with credit for course 110A. Integers, congruences; fields, applications of finite fields; polynomials; permutations, introduction to groups.

118. Mathematical Methods of Data Theory. (4) Lecture, three hours; discussion, one hour. Requisites: courses 114B, 115AX. Computational methods for data problems with focus on linear algebra and optimization. Matrix and tensor factorization, PageRank, assorted other topics in matrices, linear programming, unconstrained optimization, constrained optimization, dynamic programming, and stochastic optimization. P/NP or letter grading.

Geometry and Topology

120A-120B. Differential Geometry. (4-4) Lecture, three hours; discussion, one hour. Requisites: courses 32B, 33B, 115A, 131A. Course 120A is required to 120B. Curves in 3-space, Frenet formulas, surfaces in 3-space, normal curvature, Gaussian curvature, congruence of curves and surfaces, intrinsic geometry of surfaces, isometries, geodesics, Gauss/Bonnet theorem. P/NP or letter grading.

121. Introduction to Topology. (4) Requisite: course 115A. Metric and topological spaces, completeness, compactness, connectedness, functions, continuity, homeomorphisms, topological properties.

123. Foundations of Geometry. (4) Lecture, three hours; discussion, one hour. Requisite: course 115A. Axioms and models, Euclidean geometry, Hilbert axioms, neutral (absolute) geometry, hyperbolic geometry, Poincare model, independence of parallel postulate.

Analysis

131A-131B. Analysis. (4–4) Lecture, three hours; discussion, one hour. P/NP or letter grading. 131A. Requisites: courses 32B, 33B. Recommended: course 115A. Rigorous introduction to foundations of real analysis; real numbers, point set topology in Euclidean space, functions, continuity. 131B. Requisites: courses 33B, 115A, 131A. Derivatives, antiderivatives, integrał, sequences and series of functions, power series, Fourier series.

131AH-131BH. Analysis (Honors). (4–4) Lecture, three hours; discussion, one hour. Requisites: courses 131A, 131B, 131AH, 131BH. Advanced topics in analysis, such as Lebesgue integral, integration on manifolds, harmonic analysis. Content varies from year to year. May be repeated for credit by petition.

132. Complex Analysis for Applications. (4) Lecture, three hours; discussion, one hour. Requisites: courses 32B, 33B, and 131A, with grades of B or better. Specifically designed for students who have strong commitment to pursue graduate studies in mathematics. Introduction to complex analysis, with more emphasis on proofs. Honors course parallel to course 132. P/NP or letter grading.


136. Partial Differential Equations. (4) Lecture, three hours; discussion, one hour. Requisite: course 33A. Linear partial differential equations, boundary and initial value problems; wave equation, heat equation, and Laplace equation; separation of variables; eigenfunction expansions; selected topics, as method of characteristics for nonlinear equations.

Applied Mathematics

142. Mathematical Modeling. (4) Lecture, three hours; discussion, one hour. Requisites: courses 32B, 33B. Introduction to fundamental principles and spirit of applied mathematics. Emphasis on manner in which mathematical models are constructed for phys-
143. Analytic Mechanics. (4) Lecture, three hours; discussion, one hour. Requisites: courses 32B, 33B. Foundations of Newtonian mechanics, kinematics and dynamics of rigid bodies, variational principles and Lagrange equations; calculus of variations, variable mass; related topics in applied mathematics.

146. Methods of Applied Mathematics. (4) Lecture, three hours; discussion, one hour. Requisites: courses 32B, 33B. Integral equations, Green's function, and calculus of variations. Selected applications from control theory, optics, dynamical systems, and other engineering problems.

148. Experience of Data Science. (4) (Same as Statistics M148.) Lecture, four hours. Requisites: courses 118, 131A, 156 or Statistics 101C, 170S or Statistics 100B, 101A. Students solve real science problems for community- or campus-based clients. Students work in small groups with faculty member and client to frame client's question in data science terms, create mathematical models, analyze data, and write reports. Students may elect to undertake research on foundations of data science, studying advanced topics and writing senior thesis with discussion of findings or survey of literature on chosen topic. Development of collaborative and communication skills, communication principles, and discussion of ethical issues. Letter grading.

149. Mathematics of Computer Graphics. (4) Lecture, three hours; discussion, one hour. Requisites: course 115A, Programming in Computer 10A or equivalent knowledge of programming in either Pascal or C language. Study of homogeneous coordinates, projective geometry, interpolating and extrapolating curves, representation of surfaces, and other mathematical topics useful for computer graphics.


156. Machine Learning. (4) Lecture, three hours; discussion, one hour. Requisites: courses 115A, 164, 170A or 170E or Statistics 100A, and Computer Science 31 or Program in Computing 10A. Strongly recommended prerequisite: Program in Computing 16A or Statistics 21. Introductory course on mathematical models for pattern recognition and machine learning. Topics include parametric and nonparametric probability distributions, curve of dimensionality, correlation analysis, principal components, reduction, and concepts of decision theory. Advanced machine learning and pattern recognition problems, including data classification and clustering, regression, kernel methods, artificial intelligence, hidden Markov models, and Markov random fields. Projects in MATLAB to be part of final project presented in class. P/NP or letter grading.

157. Software Techniques for Scientific Computation. (4) Lecture, three hours; discussion, one hour. Requisites: course 151A, Program in Computing 10C. Software structures, concepts, and conventions that support object-oriented programming. Identification of class structure (module, class, object) and design and implementation of computer applications requiring scientific computation, visualization, and GUI components. Interlanguage interfacing. P/NP or letter grading.


167. Mathematical Game Theory. (4) Lecture, three hours; discussion, one hour. Requisites: courses 32B, 33B. Introduction to Networks. (4) Lecture, three hours; discussion, one hour. Requisites: courses 115A, 170E (or 170A or Electrical and Computer Engineering 131A or Statistics 100A). Introduction to network science (including theory, computation, and application). Study of some complex systems of interacting agents. Study of networks in technology, social, information, biological, and mathematics involving basic structural features of networks, generative models of networks, network summary statistics, centrality, random graphs, clustering, and dynamical processes on networks. Introduction to advanced topics such as time permitting. P/NP or letter grading.


170B. Probability Theory II. (4) Lecture, three hours; discussion, one hour. Enforced requisite: courses 131A, 170A. Continuous time Markov chains, martingales, Brownian motion, Markov processes, continuous time martingales, stochastic integration, martingale representation theorems, stochastic calculus, Markov processes, continuous time martingales, stochastic integration, martingale representation theorems, stochastic calculus. Letter grading.

170E. Introduction to Probability and Statistics 1: Probability. (4) Lecture, three hours; discussion, one hour. Requisites: courses 31A, 31B. Not open to students who have taken course 170A, Electrical and Computer Engineering 131A, or Statistics 100A. Introduction to probability theory and statistics. Use of statistics to explain phenomena, their distribution, and applications. Multivariate normal distribution, random variables, expectations, variance, covariance, properties of estimators, regression, confidence intervals, hypothesis testing, analysis of variance, P/NP or letter grading.

171. Stochastic Processes. (4) Lecture, three hours; discussion, one hour. Requisites: courses 33A, 170E (or Statistics 100A), 170A or 170E. Not open to students with credit for Statistics 100B. Introduction to statistics. Topics include sampling distribution (mean and variance), estimation, testing hypotheses, properties of estimators, regression, confidence intervals, hypothesis testing, analysis of variance, P/NP or letter grading.


173B. Casualty Loss Models II. (4) Lecture, four hours. Requisite: course 173A. Designed to prepare students for Society of Actuaries Construction and Evaluation of Actuarial Models examination. Introduction of parametric loss models and introduction to credibility theory that provides tools to utilize collected information, such as past loss information, to predict future outcomes. Use of simulation to model future events. Letter grading.

174E. Mathematics of Finance for Mathematics/Economics Students. (4) Lecture, four hours; discussion, one hour. Requisites: courses 33A, and 170A or 170E or Statistics 100A. Not open for credit to students with credit for course 174A, Economics 141, or Statistics C183/C283. Mathematical modeling of financial securities in discrete and continuous time. Forwards, Futures, Options, swaps, and swaptions, uses and pricing (tree models and Black-Scholes) of European and American options, Greeks and numerical methods. P/NP or letter grading.

175. Introduction to Financial Mathematics. (4) Lecture, four hours. Requisites: courses 32B, 33B. Designed to prepare students for Society of Actuaries Financial Mathematics examination. Provides understanding of fundamental concepts of financial mathematics and how these concepts are applied in calculating present and accumulated values from various streams of cash flows as basis for future use in re-selling, valuation, pricing, regulatory capital adequacy, investment income, capital budgeting, and valuing contingent cash flows. Letter grading.

177. Theory of Interest and Applications. (4) Lecture, three hours; discussion, one hour. Requisite: course 32B. Types of interest, time value of money, annuities and similar contracts, loans, bonds, portfolio and general cash flows, rate of return, term structure of interest rates, duration, convexity and immunization, forward and repo rates. Letter grading.

178A. Foundations of Actuarial Mathematics: Life Insurance and Annuities. (4) Lecture, three hours; discussion, one hour. Requisites: courses 32B, 170A or 170E. For Statistics 100A. Introduction to mathematics associated with long-term insurance coverages. Single- and multiple-life survival models,
annuities, premium calculations and policy values, preserves, pension plans and retirement benefits. Letter grading.

17B. Foundations of Actuarial Mathematics: Additional Topics in Long-Term Actuarial Mathematics. (4) Lecture, three hours; discussion, one hour. Requisites: courses 170B or 170S (or Statistics 100B), 178A. Multistate models, covers pensions, health insurances, and profit-testing. Study of probability distributions employed most commonly in actuarial theory. Basic ideas of short-term actuarial mathematics. Letter grading.


Discrete Mathematics


182. Algorithms. (4) Lecture, three hours; discussion, one hour. Requisite: course 3C or 32A, and 61. Not available for credit to students with credit for Computer Science 180, 186. Graphs, greedy algorithms, divide-and-conquer algorithms, dynamic programming, network flow. Emphasis on designing efficient algorithms useful in diverse areas such as bioinformatics and allocation of resources. P/NP or letter grading.


Special Studies

188A. Individual Studies for USIE Facilitators. (1) Tutorial, to be arranged. Enforced corequisite: Honors Collegium 101E. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor to discuss selected USIE seminar topic, conduct preparatory research, and begin preparation of syllabus. Individual contract with faculty mentor required. May not be repeated. Letter grading.


188C. Individual Studies for USIE Facilitators. (2) Tutorial, to be arranged. Enforced requisite: course 188B. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor while facilitating USIE 88S course. Individual contract with faculty mentor required. May not be repeated. Letter grading.

189. Advanced Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunction to undergraduates. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor.

May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

189HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to upper-division lecture course. Individual study of a requested instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.


191. Variable Topics Research Seminars: Mathematics. (4) Seminar, three hours. Variable topics research course in mathematics that covers material not covered in regular mathematics upper-division curriculum. Reading, discussion, and development of culminating project. May be repeated for credit with topic and/or instructor change. P/NP or letter grading.

191H. Honors Research Seminars: Mathematics. (4) Enriched tutorial seminar on advanced topics in mathematics. Content varies from year to year. May be repeated for credit by petition. P/NP or letter grading.

192A. Introduction to Collaborative Learning Theory and Practice. (1) Seminar, one hour. Requisite: one course from 1, 3A, 3B, 3C, 31A, 31B, 32A, 32B, 33A, 33B, or equivalent. Student must be Learning Assistant (LA) in quarter this course is taken. Training seminar for undergraduate students who are selected for LA program. Exploration of current topics in pedagogy and education research focused on methods of learning, and their practical application to supervised learning in small group settings. Students practice and evaluate communication skills. May be repeated for maximum of 16 units, but cannot be applied toward upper-division courses required for majors or minors. Letter grading.

195. Community Internships in Mathematics Education. (4) Tutorial, to be arranged. Limited to juniors/seniors. Internship to be supervised by Center for Community Learnerships and Mathematics Department. Students meet on regular basis with instructor, provide periodic reports of their experience, have assigned readings on mathematics education, and complete final paper. May not be repeated and may not be applied toward major requirements. Individual contract with supervising faculty member required. P/NP grading.

196. Directed Research or Senior Project in Mathematics. (2 or 4) Directed research course in mathematics that covers material not covered in regular mathematics upper-division courses required for majors by Mathematics Department. Individual contract required. P/NP or letter grading.

199. Directed Research or Senior Project in Mathematics. (2 or 4) Lecture, four hours; discussion, one hour. Requisite: one upper-division course required for majors or minors. Honors content noted on transcript. P/NP or letter grading.

Graduate Courses

Teacher Preparation

201A-201B. 201A. Topics in Algebra and Analysis. (4–4–4) Preparation: bachelor’s degree in mathematics. Designed for mathematics/education program students. Important ideas of algebra, geometry, and calculus leading effectively from elementary to modern mathematics. Approaches to number system, point sets, geometric interpretations of algebra and analysis, integration, differentiation, series and analytic functions. May not be applied toward MA degree requirements.

201A-201B. 202A. Mathematical Models and Applications. (4–4) Preparation: bachelor’s degree in mathematics. Designed for mathematics/education program students. Development of mathematical theories describing various empirical situations. Basic characterizing postulates; development of a logical structure of treatments. Modern topics such as operations research, linear programming, game theory, learning models, models in social and life sciences. May not be applied toward MA degree requirements.

203. Master’s Linear Algebra. (4) Lecture, four hours; discussion, one hour. Rigorous treatment of fundamental results of pure and applied linear algebra over fields. Applications to contemporary research. Preparation for linear algebra portion of UCLA Math-ematics Basic Examination that is required of MA and PhD students. S/U or letter grading.

204. Master’s Analysis. (4) Lecture, four hours; discussion, one hour. Rigorous treatment of fundamental results of analysis. Applications to contemporary research. Preparation for analysis portion of UCLA Mathematics Basic Examination that is required of MA and PhD students. S/U or letter grading.

Number Theory

205A-205B-205C. Number Theory. (4–4–4) Lecture, three hours. Requisites: courses 210A, 246A. Algebraic number theory, including ideal theory, valuations, local fields, cyclotomic fields. Introduction to class-field theory, analytic number theory, L-functions and class number formulas, and modular forms. S/U or letter grading.


207A-207B-207C. Topics in Number Theory. (4–4–4) Lecture, three hours. Advanced analysis on GL(1) and GL(n), especially Torsoirs and Hecke theory, automorphic representations. Special values of L-functions and p-adic L-functions, arithmetic theory of modular forms, advanced topics in analytic number theory. Modern theory, especially of modular curves. S/U or letter grading.


M209A. Cryptography. (4) Same as Computer Science M283A-M283B. Lecture, three hours. Advanced analysis on GL(1) and GL(n), especially Torsoirs and Hecke theory, automorphic representations. Special values of L-functions and p-adic L-functions, arithmetic theory of modular forms, advanced topics in analytic number theory. Modern theory, especially of modular curves. S/U or letter grading.
digital signatures, interactive proofs, zero-knowledge proofs, collision-resistant hash functions, commitment protocols, key-agreement, contract signing, and two-party secure computation with static security. Letter grading.

M209A. Cryptographic Protocols. (4) (Same as Computer Science M228B.) Lecture, four hours. Requisite: course M209A. Consideration of advanced cryptographic protocol design and analysis. Topics include noninteractive zero-knowledge proofs; zero-knowledge proofs for non-linear and non-black-box zero-knowledge; IP=PSPACE proof, stronger notions of security for public-key encryption, including chosen ciphertext security; secure multi-party computation; dealing with dynamic adversary; nonmalicious and completeness for secure protocols; software protection; threshold cryptography; identity-based cryptography; private information retrieval; protection against man-in-the-middle attacks; voting protocols; identification protocols; digital cash schemes; lower bounds on use of cryptographic primitives, software obfuscation. May be repeated for credit with topic change. Letter grading.

Algebra

210A-210B-210C. Algebra. (4–4–4) Requisites: courses 110A, 110B, 110C. Students with credit for courses 110B and/or 110C cannot receive MA degree credit for courses 210B and/or 210C. Group theory, including theories of Sylow and Jordan/Holden/Schreier; rings and ideals, factorization theory in integral domains; modules over principal ideal rings. Galois theory of fields, multilinear algebra, structure of algebras, invariant theory, Hodge theory, geometry over finite fields, K-theory, homological algebra, and derived algebraic geometry. May be repeated for credit by petition. S/U or letter grading.

217. Geometry and Physics. (4) (Same as Physics M236.) Lecture, three hours. Interdisciplinary course on topics at interface between physics quantum fields and string theory and mathematical differential and algebraic geometry. Topics include supersymmetry, Seiberg-Witten theory, conformal field theory, Calabi-Yau manifolds, mirror symmetry and duality, integrable systems. S/U or letter grading.


218C. Topics in Discrete Mathematics. (4) Lecture, three hours. Dimension arguments and techniques that were developed in last 30 years in discrete mathematics. Topics may include extremal problems for graphs and set systems, Ramsey theory, additive combinatorics, probabilistic methods, entropy and other tools from information theory, discrete harmonic analysis and its applications to combinatorics, and other advanced topics. Topics vary from year to year. May be repeated for credit with consent of instructor. S/U or letter grading.

Logic and Foundations

220A-220B-220C. Mathematical Logic. (4–4–4) Lecture, three hours. Requisite: course M114S. Fundamentally methods and results in mathematical logic, using mathematical methods to reason about existence of nonconstructive proofs and constructions in many different settings. Topics include compactness theorem, saturation of models, completeness and incompleteness theorems of Gödel, Turing computability and degrees of unsolvability, recursion in Baire space, Zermelo-Fraenkel axioms, universe of constructible sets, and related equiconsistency results in set theory. S/U or letter grading.


214A. Topics in Algebraic Geometry. (4-4) Requisite: course 210A. Topics include representation theory, transfer theorem, infinite Abelian groups, free products and projective modules, solvable and nilpotent groups, classical groups, algebraic groups.


223A-223B. Commutative Algebra. (4–4) Requisite: course 210A. Topics from commutative ring theory, including theories of localization, prime ideal structure in commutative Noetherian rings, principal ideal theory, the Nullstellensatz, modules, projective modules, Serre conjecture, regular local rings.

216A-216B-216C. Further Topics in Algebra. (4–4–4) Lecture, three hours. Requisites: courses 210A, 210B, 210C. Cross examination of areas of current research in algebraic geometry and K-Theory. Variable content may include Abelian varieties, invariant theory, Hodge theory, geometry over finite fields, K-theory, homological algebra, and derived algebraic geometry. May be repeated for credit by petition. S/U or letter grading.


225B. Homological Algebra. (4) Lecture, three hours. Requisites: courses 210A, 210B, 210C, 212A. Advanced topics in modern homological algebra, such as triangulated categories, differential graded algebra as dg-categories, tilting theory and applications of group cohomology to representation theory, stable categories and module representation theory, and other modern topics. S/U or letter grading.

225B. Topics in Homological Algebra. (4) Lecture, three hours. Requisites: courses 210A, 210B, 210C, 212A. Advanced topics in modern homological algebra, such as triangulated categories, differential graded algebra as dg-categories, tilting theory and applications of group cohomology to representation theory, stable categories and module representation theory, and other modern topics. May be repeated for credit with consent of instructor. S/U or letter grading.

227A. Group Theory. (4) Lecture, three hours. Requisites: courses 225A, 225B. Topics vary from year to year. May be repeated for credit by petition. S/U or letter grading.

228A-228B. Algebraic Topology. (4–4) Three hours. Enforced requisite: course 225B. Linearity of expectation, Chern classes, characteristic classes, and algebras with minimum condition.

229A-229B-229C. Lie Groups and Lie Algebras. (4–4–4) Three hours. Enforced requisite: course 229B. Lie theory; fundamental group and covering spaces, singular homology and cohomology theory, axioms of homotopy theory, fundamental group and covering spaces, singular homology and cohomology theory, axioms of homotopy theory, Mayer-Vietoris sequence, calculation of homology and cohomology of standard spaces, cell complexes and cellular homology, de Rham theory on isomorphism of de Rham differential-form homology and singular cohomology with real coefficients. S/U or letter grading.


231A. Partial Differential Equations on Manifolds. (4) Lecture, three hours. Requisites: courses 226A, 225A. May include Laplacian operator on a Riemannian manifold, eigendecomposition of the Laplace-Beltrami operator, geodesics, isoperimetric inequalities, elliptic estimates, harmonic functions, function theory on manifolds, Green's function, heat equation, minimal hypersurfaces, prescribed curvature equations, harmonic maps, Yam/Williams equation, Monge/Ampère equations.

232A. Topics in Differential Geometry. (4) Lecture, three hours. Requisites: courses 226A, 226B. Complete Kahler geometry; theory of homogeneous manifolds and symmetric spaces, finiteness and convergence theorems for Riemannian manifolds, almost flat manifolds, closed geodesics, manifolds of positive scalar curvature, manifolds of constant curvature. Topics vary from year to year. May be repeated for credit by petition.

233A. Topics in Manifold Theory. (4) Lecture, three hours. Requisites: courses 225A, 225B, 226C. Forcing and independence results, including independence of continuum hypothesis and independence of axiom of choice, inner model theory, large cardinals; proofs of determinacy, combinatorial set theory. Topics vary from year to year. May be repeated for credit with consent of instructor. S/U or letter grading.
von manifolds, automorphisms of manifolds, submanifolds (e.g., knots and links). Topics vary from year to year. May be repeated for credit by petition.

236. Topics in Geometric Topology. (4) Lecture, three hours. Requisites: courses 225A, 225B. Decomposition spaces, surgery theory, group actions, dimension theory, in finite dimensional topology. Topics vary from year to year. May be repeated for credit by petition.

237. Topics in Algebraic Topology. (4) Lecture, three hours. Requisites: courses 227A, 227B. Fixed-point theory, fiber spaces and classifying spaces, characteristic classes, generalized homology and cohomology theories. Topics vary from year to year. May be repeated for credit by petition.

238A-238B. Dynamical Systems. (4-4) Lecture, three hours. Recommended preparation: first-year analysis courses. Topics include qualitative theory of differential equations, bifurcation theory, and Hamiltonian systems; differential dynamics, including hyperbolic and quasiperiodic dynamics; ergodic theory; low-dimensional dynamics. S/U or letter grading.

Analysis and Differential Equations


245A-245B-245C. Real Analysis. (4-4-4) Lecture, three hours. Requisites: courses 121, 131A, 131B. Basic measure theory, Measure theory on locally compact spaces. Fourier transform, Elementary aspects of Banach and Hilbert spaces and linear operators. Function spaces, Radon/Nikodym theorem. Fourier transform and Plancherel on R^n and T^n.


250B. Nonlinear Ordinary Differential Equations. (4) Requisites: courses 250A, 250B. Selected topics, such as spectral theory or ordinary differential operators, nonlinear boundary value problems, celestial mechanics, approximation of solutions, and Volterra equations.


251B-251C. Topics in Partial Differential Equations. (4–4) In-depth introduction to topics of current interest in partial differential equations or their applications.


253A-253B. Several Complex Variables. (4–4) Requisites: courses 246A, 246B, 246C. Introduction to analytic functions of several complex variables. The d-bar problem, Cousin problems, domains of holomorphy, complex manifolds.

254A-254B. Topics in Real Analysis. (4–4) Requisites: courses 245A, 245B, 245C, 246A, 246B, 246C. Selected topics in analysis and its applications to geometry and differential equations. Topics may vary from year to year. May be repeated for credit by petition.

Functional Analysis


Applied Mathematics


264. Applied Complex Analysis. (4) Requisite: course 246A. Topics include contour integration, conformal mapping, theory of analytic functions in the plane, special functions, asymptotic series, Fourier and Laplace transforms, singular integral equations.


266D-266E. Applied Differential Equations. (4–4) Requisites: courses 265A, 265B, 265C. Advanced topics in linear and nonlinear partial differential equations, with emphasis on energy estimates, numerical methods and applications to scientific mechanisms. Additional topics include dispersive waves, systems with multiple time scales, and applications to fluid mechanics.


numerical algorithms and novel parallel algorithms. Emphasis on applications to PDEs. S/U or letter grading.

271A. Tensor Analysis. (4) Requisite: course 131A. Algebra and calculus of tensors on n-dimensional manifolds. Covariant and contravariant free methods. Preparation of differentiable Green/Stokes theorem for differential forms. Applications to topics such as continuum and particle mechanics.


275A-275B. Probability Theory. (4–4) Lecture, three hours; discussion, one hour. Connection between probability theory and real analysis. Weak and strong laws of large numbers, central limit theorem, conditioning, ergodic theory, martingale theory, S/U or letter grading.


275E. Stochastic Particle Systems. (4) Lecture, three hours. Requisite: course 275C. Interacting particle systems, including contact process, stochastic Ising model, and exclusion processes; percolation theory. S/U or letter grading.

276. Topics in Network Science. (4) Lecture, three hours. Requisites: courses 115A, 170A. Interesting and popular areas of network science. Topics vary from year to year and may include dynamical processes on networks, mesoscale structures in networks, time-dependent networks, multilayer networks, applications of networks, data analysis in networks, spatial networks, and others. Discussion of recent review articles. Some view-solution presentations by students. Joint project on topic in network science possibly leading to publication. S/U or letter grading.

Special Studies

280. Programming++ for Mathematics Graduate Students. (4) Lecture, three hours. Preparation: prior knowledge of mathematical languages, such as Python, R, and Julia. Students gain knowledge of core programming language concepts, core operating system constructs, and core computational hardware constructs in order to become proficient in programming for academic, research, and professional environments. S/U or letter grading.

280A-280N. Combinatorial Studies. (1) Seminar, three hours. May be repeated for credit. S/U grading.

495. College Teaching Mathematics. (2) Seminar, two hours; discussion, one hour. Preparation: consent of UCLA department chair and graduate dean, and host campus instructor, department chair, and graduate dean. Use of research software packages, and creation of electronic teaching portfolio. Provides mechanics of technology and forum for evaluation and comparison of technology in undergraduate mathematics teaching. S/U grading.

501. Cooperative Program. (2 to 8) Preparation: consent of UCLA department chair and graduate dean, and host campus instructor, department chair, and graduate dean. Use of research software packages, and creation of electronic teaching portfolio. Provides mechanics of technology and forum for evaluation and comparison of technology in undergraduate mathematics teaching. S/U grading.

599. Research in Mathematics. (2 to 12) Tutorial, to be arranged. Preparation: advancement to PhD candidacy. Study and research for PhD dissertation. May be repeated for credit. S/U grading.

Program in Computing Lower-Division Courses

1. Introduction to Computers and Computing. (4) Lecture, three hours; laboratory, one hour. Not open for credit to students with credit for course 15 or 10A; may not be taken concurrently with course 15 or 10A. Fundamentals of computers and programming: editors, spreadsheets, file manager; machine organization and computer hardware; Internet; software applications. P/NP grading.

15. Software Tools for Information Management. (1) Lecture, one hour; laboratory, two hours. Preparation: some familiarity with computers. Not open for credit to students with credit for course 1; may not be taken concurrently with course 15. Coursework taken by students with credit for more advanced courses. Introduction to spreadsheets and databases in laboratory setting. P/NP grading.
3. Introduction to Computing for Social Sciences and Humanities. (4) Lecture, three hours; discussion, two hours. No prior programming knowledge required. Not open for credit to students pursuing specialization in Computing or to students with credit for course 20A. Basic principles of object-oriented programming and concepts, with applications from social sciences and humanities. Overview of Java programming language, programming with objects, control structures and functions, classes and object-oriented design, event-driven programming, application to multi-threaded models. P/NP or letter grading.

10A. Introduction to Programming. (5) Lecture, three hours; discussion, two hours; laboratory, eight hours. No prior programming experience assumed. Basic principles of programming, using C++; algorithmic, procedural problem solving; program design and development; basic data types, control structures and functions; functional arrays and pointers; introduction to classes for programmer-defined data types. P/NP or letter grading.

10B. Intermediate Programming. (5) Lecture, three hours; discussion, two hours; laboratory, eight hours. Requisite: course 10A or Computer Science 31. Abstract data types and their implementation using C++ class mechanism; dynamic data structures, including linked lists, stacks, queues, trees, and hash tables; applications; object-oriented programming and software reuse; recursion; algorithms for sorting and searching. P/NP or letter grading.

10C. Advanced Programming. (5) Lecture, three hours; discussion, laboratory, eight hours. Enforced requisite: course 10B. More advanced algorithms and data structure techniques; additional emphasis on algorithmic efficiency; advanced features of C++; such as inheritance and virtual functions; graph algorithms. P/NP or letter grading.

15. Introduction to Lisp and Symbolic Computation. (5) Lecture, three hours; discussion, two hours; laboratory, eight hours. Enforced requisite: course 10A. Introduction to computer programming using Lisp programming language. Basics: list structures, recursion, function abstraction. Advanced topics: knowledge representation, higher-order functions, problem-solving algorithms and heuristics. P/NP or letter grading.

16A. Python with Applications I. (5) Formerly numbered 16.) Lecture, three hours; discussion, two hours. Requisites: courses 10A and Computer Science 15A. Considered equivalent, with grades of C– or better. Introduction to Python programming language for students who have already taken beginning programming course in a strongly typed, compiled language (C++, C, or Fortran). Core Python language constructs, applications, text processing, data visualization, interaction with spreadsheets and SQL databases, and creation of graphical user interfaces. P/NP or letter grading.

19. Fiat Lux Freshman Seminars. (1 Seminar) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths at UCLA. P/NP or letter grading.

20A. Principles of Java Language with Applications. (5) Lecture, three hours; discussion, two hours; laboratory, eight hours. Requisite: course 10A or Computer Science 31A, 31B, 61. Considered equivalent, with grades of C– or better. Further aspects of use of classes, graphics components, exception handling, multi-threading, and multimedia. Additional topics may include networking services, database connectivity, and JavaBeans. P/NP or letter grading.

20B. Advanced Aspects of Java Language with Applications. (5) Lecture, three hours; discussion, two hours; laboratory, eight hours. Enforced requisite: course 20A. Further aspects of use of classes, graphics components, exception handling, multi-threading, and multimedia. Additional topics may include networking services, database connectivity, and JavaBeans. P/NP or letter grading.

20C. Seminar: Enterprise Computing with Java. (5) Lecture, three hours; discussion, two hours; laboratory, five hours. Enforced requisite: course 20B. Overview of Enterprise Java APIs: remote method invocation, databases access with SQL, servlets, and JSP; issues in implementation of server-side Java applications. Use of Java in conjunction with XML, individual or group projects and presentations. P/NP or letter grading.

30. Machine Organization and Assembly Language Programming. (5) Lecture, three hours; discussion, two hours; laboratory, eight hours. Enforced requisite: course 10B. Description of machine organization and operation. Representation of information, instruction sets and formats, addressing modes, memory organization and management, input/output (I/O) processing and interrupts. P/NP or letter grading.

40A. Introduction to Programming for Internet. (5) Lecture, three hours; discussion, two hours; laboratory, eight hours. Enforced requisite: course 10A or Computer Science 31 or equivalent, and one from course 10B, 16A, 20A, Computer Science 32 or equivalent, with grades of C– or better. Introduction to programming for World Wide Web for students with strong foundation in programming, HTML5 and CSS3 markup languages to design web sites; client-side scripting with JavaScript to enable event-driven interactivity, animations, and cookie tracking; server-side scripting with PHP to render HTML pages, store, and retrieve data on server; and introduction to databases through SQLLite. P/NP or letter grading.

40B. Advanced Topics in Programming for Internet. (5) Lecture, three hours; discussion, two hours; laboratory, eight hours. Enforced requisite: course 40A. Study of advanced topics in Web programming, with focus on server-side technologies. P/NP or letter grading.


89. Honors Seminars. (1 Seminar) Seminar, three hours. Limited to 20 students. Designated as adjunct to lower-division lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

98HC. Honors Contracts. (1 Tutorial) Tutorial, three hours. Limited to students in College Honors Program. Designated as adjunct to upper-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be repeated for credit. S/U grading.

187. Advanced Variable Topics in Programming. (4) Lecture, three hours; discussion, one hour. Variable topics in programming and mathematics of programming not covered in regular program in computing courses. May be repeated for credit with topic change. P/NP or letter grading.

189. Advanced Honors Seminars. (1 Seminar) Seminar, three hours. Limited to 20 students. Designated as adjunct to undergraduate lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

Graduate Courses


375. Teaching Apprentice Practicum. (1 to 4 Semester) Seminar, to be arranged. Preparation: apprentice personnel employment as teaching assistant, associate, or fellow. Teaching apprenticeship under active guidance and supervision of regular faculty member responsible for curriculum and instruction at UCLA. May be repeated for credit. S/U grading.
C or better in all premajor economics courses (Economics 1, 2, 11) with a minimum 2.7 grade-point average and no more than one repeat; (3) complete one 12-unit term in residence in regular session at UCLA; (4) be enrolled in UCLA regular session at the time of application, and (5) file a petition to declare the major before completing 160 quarter units.

Preparation for the Major

Required: Mathematics 31A or 31AL, 31B, 32A, 32B, 33A, 33B, 61, Economics 1, 2, 11, Program in Computing 10A, one Writing II course. Each course must be taken for a letter grade. The economics preparation for the major courses (Economics 1, 2, 11) are calculated separately from the mathematics preparation for the major courses (Mathematics 31A or 31AL, 31B, 32A, 32B, 33A, 33B, 61, Program in Computing 10A). The economics preparation courses must be completed with a minimum overall 2.7 grade-point average and a grade of C or better in each course, as must the mathematics preparation courses. Students must receive a grade of C or better in the Writing II course.

Repetition of more than one economics preparation course, more than two mathematics preparation courses, or of any economics or mathematics preparation course more than once results in automatic dismissal from the major.

Freshman Students

To enter the major, students must petition after they have completed the six sequenced courses with a 2.7 minimum overall grade-point average, have completed one 12-unit term in residence in regular session at UCLA, are enrolled in UCLA regular session at the time of application, and before completing 160 quarter units.

Transfer Students

Transfer applicants to the Mathematics/Economics major with 90 or more units must complete as many of the following introductory courses as possible prior to admission to UCLA: two years of calculus for majors, one introduction to discrete structures course, one microeconomics theory course, one macroeconomics course, and one C++ programming course.

Transfer credit for any of the above is subject to department approval; consult with an undergraduate counselor before enrolling in any courses for the major.

Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

After satisfying the preparation for the major requirements, students need to petition to enter the major at the Student Services Office after completing one 12-unit term in residence in regular session at UCLA, and while enrolled in UCLA regular session at the time of application.

The Major

Required: Eight mathematics courses, including Mathematics 115A, 131A, 131B, 164, 170E, 170S, 174E (or Economics 141 or Statistics C183), and one elective course from Mathematics 134, 135, 136, or 171; five economics courses, including Economics 101, 102, 103 (with 103L), and two additional courses from 106E through 199E. Each course must be taken for a letter grade. Transfer credit is subject to department approval; consult with an undergraduate counselor before enrolling in any courses for the major.

To graduate, the eight Mathematics Department courses must be completed with an overall grade-point average of 2.0, with grades of C– or better in Mathematics 115A and 131A, as must the five courses from the Economics Department, with grades of C– or better in Economics 101 and 102.

Mathematics 115A is intended to be the first upper-division course taken. It is strongly advised that students take Mathematics 115A as soon as the major is declared, if not earlier.

Honors Program

Students who wish to graduate with departmental honors should apply for admission to the honors program in the Mathematics Department Student Services Office. They may apply any time after completing the preparation for the major courses and meeting the following requirements: (1) be officially enrolled in the Mathematics/Economics major, (2) complete all the preparation for the major courses, (3) achieve a minimum 3.5 grade-point average in the mathematics preparation for the major courses, (4) achieve a minimum 3.5 grade-point average in the economics preparation for the major courses, and (5) achieve a minimum 3.5 grade-point average in Economics 11, 101, and 102.

To qualify for honors at graduation, students must (1) complete Mathematics 115AH, 131AH, and 131BH, (2) complete Economics 198A and 198B (the thesis process requires enrollment in a two-term sequence for economics courses), (3) present the thesis in Economics 1988, and (4) complete the major requirements with a minimum 3.5 grade-point average in both the upper-division economics and mathematics courses. Highest honors are awarded at the discretion of the departmental honors committee based on grade-point average and quality of the senior thesis.

Computing Specialization

Majors in Mathematics/Economics may select a Computing specialization by (1) satisfying all the requirements for a bachelor’s degree in the major; and (2) completing Mathematics 61 or 180; Program in Computing 10A, 108, two courses from 10C, 15, 16A, 20A, 20B, 30, 40A, 60, and at least two courses from Mathematics 149 through 159, with a minimum grade of C– in each course and a combined grade-point average of at least 2.0. Students must petition for admission to the program and are advised to do so after they complete Program in Computing 108 (petitions should be filed in the Mathematics Department Student Services Office). Students graduate with a bachelor’s degree in mathematics/economics and a specialization in Computing.
MECHANICAL AND AEROSPACE ENGINEERING

Henry Samueli School of Engineering and Applied Science

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Department e-mail

Timothy F. Fisher, PhD, Chair
Pei-Yu Chiou, PhD, Vice Chair
Jeffrey D. Eldredge, PhD, Vice Chair
Chang-Jin Kim, PhD, Vice Chair

Professors

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Andrea L. Bertozzi, PhD (Betsy Wood Knapp Professor of Innovation and Creativity)
Gregory P. Carman, PhD (Ben Rich-Lockheed Martin Professor of Advanced Aerospace Technologies)
Yong Chen, PhD
Pei-Yu Chiou, PhD
Vijay K. Dhir, PhD
Dino Di Carlo, PhD
Jeffrey D. Eldredge, PhD
Timothy F. Fisher, PhD
Rajit Gadh, PhD
Nasr M. Ghaoniem, PhD
Vijay Gupta, PhD
Dennis W. Hong, PhD
Tetuaya Ishiwaki, PhD
Y. Sungtaek Ju, PhD
Ann R. Karagozian, PhD
H. Pirouz Kavehpour, PhD
Chang-Jin Kim, PhD (Volgenau Endowed Professor of Engineering)
Adrienne G. Lavine, PhD
Xiaochun Li, PhD (Raytheon Company Professor of Manufacturing Engineering)
Kuo-Nan Liu, PhD
Ajit K. Mal, PhD
Jaime Marian, PhD
Robert T. M’Closkey, PhD
Ali Mosleh, PhD, NAE (Evelyn Knight Professor of Engineering)
Jayathy Y. Murthy, PhD, Dean
Laurent G. Pilon, PhD
Jacob Rosen, PhD
Jason L. Speyer, PhD (Ronald and Valerie Sugar Endowed Professor of Engineering)
Tsu-Chin Tsao, PhD
Richard E. Wirz, PhD
Xiaolin Zhong, PhD

Professors Emeriti

Oddvar O. Bendiksen, PhD
Ivan Catton, PhD
Peretz P. Friedmann, ScD
James S. Gibson, PhD
H. Thomas Hahn, PhD (Raytheon Company Professor Emeritus of Manufacturing Engineering)
Chih-Ming Ho, PhD (Ben Rich Lockheed Martin Professor Emeritus of Aeronautics)
Robert E. Kelly, ScD
J. John Kim, PhD (Rockwell Collins Professor Emeritus of Engineering)
Anthony F. Mills, PhD
D. Lewis Mingor, PhD
Peter A. Monkewitz, PhD
Philip F. O’Brien, MS

Lucien A. Schmit, Jr., MS
Owen L. Smith, PhD
Richard E. Stern, PhD
Russell A. Westmann, PhD
Daniel C.H. Yang, PhD

Associate Professors

Robert N. Candler, PhD
Elisa Franco, PhD
Jonathan B. Hopkins, PhD
Veronica J. Santos, PhD
Kunihiko Taira, PhD

Assistant Professors

Tyler R. Clites, PhD
Artur R. Davoyan, PhD
Yongjie Hu, PhD
Lihua Jin, PhD
M. Khalid Jawed, PhD
Raymond M. Spearin, PhD
Xiaoyu (Rayne) Zheng, PhD

Lecturers

Ramneen C. Amar, PhD
Amya K. Chatterjee, PhD
Robert J. Kinsey, PhD
Daman M. Tooney, PhD

Adjunct Professors

Dan M. Goebel, PhD
Vina K. Goyal, PhD
Leslie M. Lackman, PhD
Wiburu J. Marner, PhD
Neil B. Morley, PhD
Neil Siegel, PhD

Adjunct Associate Professor
Abdon E. Sepulveda, PhD

Scope and Objectives

The Department of Mechanical and Aerospace Engineering offers curricula in Aerospace Engineering and Mechanical Engineering at both the undergraduate and graduate levels. The scope of the departmental research and teaching program is broad, encompassing dynamics, fluid mechanics, heat and mass transfer, manufacturing and design, nanoelectromechanical and microelectromechanical systems, structural and solid mechanics, and systems control. The applications of mechanical and aerospace engineering are quite diverse, including aircraft, spacecraft, automobiles, energy and propulsion systems, robotics, machinery, manufacturing and materials processing, microelectronics, biological systems, and more.

At the undergraduate level, the department offers accredited programs leading to B.S degrees in Aerospace Engineering and in Mechanical Engineering. At the graduate level, the department offers programs leading to M.S and Ph.D degrees in Mechanical Engineering and in Aerospace Engineering. An M.S in Manufacturing Engineering is also offered.

Effective oral and written communication
Design of a system, component, or process to solve engineering problems
And solve engineering problems; and communicate productively members of a team; identify, formulate, and solve engineering problems; and communicate effectively, both orally and in writing.

Aerospace Engineering BS

Capstone Major

The Aerospace Engineering program is concerned with the design and construction of various types of fixed-wing and rotary-wing (helicopters) aircraft used for air transportation and national defense. It is also concerned with the design and construction of spacecraft, the exploration and utilization of space, and related technological fields. Aerospace engineering is characterized by a very high level of technology. The aerospace engineer is likely to operate at the forefront of scientific discoveries, often stimulating these discoveries and providing the inspiration for the creation of new scientific concepts. Meeting these demands requires the imaginative use of many disciplines, including fluid mechanics and aerodynamics, structural mechanics, materials and aeroelasticity, dynamics, control and guidance, propulsion, and energy conversion.

Learning Outcomes

The Aerospace Engineering major has the following learning outcomes:

• Application of knowledge of mathematics, science, and engineering
• Function as a productive member of a team that considers multiple aspects of an engineering problem
• Design of a system, component, or process to meet desired needs
• Effective oral and written communication
• Identification, formulation, and solution of engineering problems

Preparation for the Major

Required: Chemistry and Biochemistry 20A, 20B, 20L; Mathematics 31A, 31B, 32A, 32B, 33A; Mechanical and Aerospace Engineering M20 (or Computer Science 31); 82; Physics 1A, 1B, 1C, 4AL, 4BL.

The Major

Required: Mechanical and Aerospace Engineering 1, 101, 102, 103, 105A, 105D, 107, 150A, 157, 166A, 171A; two departmental breadth courses (Electrical and Computer Engineering 100 and Materials Science and Engineering 104)—if one or both of these courses are taken as part of the technical breadth requirement, students must select a replacement upper-division course or courses from the department—except for Mechanical and Aerospace Engineering 156A—or, by petition, from outside the department; one of the following two tracks (16 units): aeronautics (C150B, C150P, 154A, 154S) or space (C150R, 161A, 161B, 161C); three technical
broadth courses (12 units) selected from an approved list available in the Office of Academic and Student Affairs; one capstone design course (Mechanical and Aerospace Engineering 131A); one major field elective course (4 units) from the track not chosen (150B or C150P; C150R or 161A) and one major field elective course (4 units) from Mechanical and Aerospace Engineering 150B, 150R, 154S, 161A, 161B, 161C (unless taken as a required course), or from 94, 131A, C131G, 133A, 135, 136, C138, CM140, 150C, C150G, 154S, C156B, 162A, 166C, M168, 169A, 171B, 172, 174, C175A, 181A, 182B, 182C, 183A (unless taken as a required course), M183B (unless taken as a required course), C183C, 185, C186, C187L.

For information on UC, school, and general education requirements, see the College and Schools chapter.

Graduate Study

Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Division website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Graduate Degrees

The Department of Mechanical and Aerospace Engineering offers the Master of Science (MS) degree in Manufacturing Engineering, Master of Science (MS) and Doctor of Philosophy (PhD) degrees in Aerospace Engineering, and Master of Science (MS) and Doctor of Philosophy (PhD) degrees in Mechanical Engineering.

Mechanical and Aerospace Engineering

Lower-Division Courses

1. Undergraduate Seminar. (1) Seminar, one hour; outside study, two hours. Introduction by faculty members and industry lecturers to mechanical and aerospace engineering disciplines through current and emerging applications in aerospace, medical instrumentation, automotive, entertainment, energy, and manufacturing industries. P/NP grading.

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating current intellectual importance. Requisites: course 101, Mathematics 33A, Physics 1A, 1B. Letter grading.


For information on UC, school, and general education requirements, see the College and Schools chapter.

Upper-Division Courses


102. Dynamics of Particles and Rigid Bodies. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Requisites: course 101, Mathematics 33A, Physics 1A. Fundamental concepts of Newtonian mechanics. Kinematics and kinetics of particles and rigid bodies in two and three dimensions. Impulse-momentum and work-energy relationships. Applications. Letter grading.

103. Elementary Fluid Mechanics. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Requisites: Mathematics 32B, 33A, Physics 1B. Introductory course dealing with application of principles of mechanics to flow of compressible and incompressible fluids. Letter grading.

105A. Introduction to Engineering Thermodynamics. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Requisites: Chemistry 20B, Mathematics 32B. Phenomenological thermodynamics. Concepts of equilibrium, temperature, and reversibility. First law and concept of energy; second law and concept of entropy. Equations of state and thermodynamic properties. Engineering applications of these principles in analysis and design of closed and open systems. Letter grading.

105D. Transport Phenomena. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Requisites: courses 82, 103, 105A. Transport phenomena; heat conduction, mass species diffusion, convective and conductive heat and mass transfer, and radiation. Engineering applications in thermal and environmental control. Letter grading.

107. Introduction to Modeling and Analysis of Dynamic Systems. (4) Lecture, four hours; discussion, one hour; laboratory, two hours; outside study, five hours. Enforced requisites: courses M20 (or Computer Science 31), 82, Electrical Engineering 100. Introduction to modeling of physical systems, with examples of mechanical, fluid, thermal, and electrical systems. Description of these systems with coverage of impulse response, convolution, frequency response, first- and second-order system transient response analysis, and numerical solution. Nonlinear differential equation descriptions with discussion of equilibrium solutions, small signal linearization, large signal representation, block diagram transfer functions, and response of interconnections of systems. Hands-on experiments reinforce lecture material. Letter grading.

131A. Intermediate Heat Transfer. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Enforced requisites: courses M20 (or Civil Engineering M20 or Computer Science 31), 82, 105D. Steady conduction: two-sided, two-ended, tapered, and circular fins; forced and natural convection: slabs, cylinders, products. Convection: transpiration, laminar pipe flow, film condensation, boundary layers.


C150G. Fluid Dynamics of Biological Systems. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Enforced requisite: course 103. Mechanics of aquatic locomotion; insect and bird flight aerodynamics; pulsatile flow in circulatory system; rheology of blood; transport in microcirculation; role of fluid dynamics in arterial diseases. Concurrently scheduled with course C250G. Letter grading.

C150P. Aircraft Propulsion Systems. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Enforced requisites: courses 103, 105A. Chemical thermodynamics of gases, aircraft jet engine cycle analysis and component performance, component matching, advanced aircraft engine topics. Concurrently scheduled with course C250P. Letter grading.

C150R. Rocket Propulsion Systems. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Enforced requisite: courses 103, 105A. Rocket propulsion concepts, including chemical rockets (liquid, gas, and solid propellants), hybrid rocket engines, electric (ion, plasma) rockets, nuclear rockets, and solar-powered vehicles. Current issues in launch vehicle technology and concurrently scheduled with course C250R. Letter grading.

154A. Preliminary Design of Aircraft. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Enforced requisite: course 154S. Classical preliminary design of aircraft: weight estimation, flight performance and stability, and control consideration. Term assignment consists of preliminary design of low-speed aircraft. Letter grading.


154S. Flight Mechanics, Stability, and Control of Aircraft. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Requisites: courses 150A, 150B. Aircraft performance, flight mechanics, stability, and control; some basic ingredients needed for design of aircraft. Effects of airplane flexibility on stability derivatives. Letter grading.


CM140. Introduction to Biomechanics. (4) Same as Biogengineering CM140) Lecture, four hours; discussion, two hours; outside study, six hours. Requisites: courses 103, 114A, or 166A. Introduction to basic mechanical principles of human body, skeletal adaptation to optimize load transfer, mobility, and function. Dynamics and kinematics. Fluid mechanics applications. Heat and mass transfer. Power generation. Laboratory simulations and tests. Concurrently scheduled with course CM240. Letter grading.
noscale position systems. Hands-on exercises include build-your-own fixture kits, CAD and FEA simulations, and term project. Concurrently scheduled with course C294A. Letter grading.

162D. Mechanical Engineering Design I. (4) Lecture, two hours; laboratory, four hours; outside study, six hours. Enforced requisite: course 162D. Limited to seniors. Second of two mechanical engineering capstone design courses. Student groups continue design projects started in course 162D, making use of CAD design laboratory, CAD analysis laboratory, and mechatronics laboratory. Design theory, design tools, economics, marketing, manufacturability, quality, intellectual property, design for manufacture and assembly, design for safety and reliability, and engineering ethics. Students conduct hands-on design, fabrication, and testing. Culminating project demonstrations or competition. Preparation of design project presentations in both oral and written formats. Letter grading.

166A. Analysis of Aerospace Structures. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Requisites: courses 82, 101. Not open to students having course 156A. Introduction to classical methods: performance specifications, root locus, Nyquist, Bode, and root locus methods; compensation; computer-aided analysis and design. Letter grading.


172. Control System Design Laboratory. (4) Lecture, four hours; laboratory, two hours; outside study, six hours. Enforced requisite: course 171A. Introduction to loop shaping controller design with application to laboratory electromechanical systems. Power spectrum models of noise and disturbances, and performance trade-offs imposed by conflicting requirements. Constraints on sensitivity function and complementary sensitivity function imposed by nonminimum phase plants. Lecture topics supported by weekly hands-on exercises. Letter grading.

174. Probability and Its Applications to Risk, Reliability, and Quality Control. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Requisite: Mathematics 33A. Introduction to probability theory; random variables, functions of random variables, models of failure components, reliability, redundancy, complex systems, stress-strength models, fault tree analysis, statistical quality control by variables and by attributes, acceptance sampling. Letter grading.

C175A. Probability and Stochastic Processes in Dynamical Systems. (4) Lecture, four hours; outside study, eight hours. Enforced requisites: courses 82, 107. Probability densities, stochastic processes and processes, expectation, conditional expectation, Gauss/Markov sequences, and minimum variance estimator (Kalman filter) with applications. Concurrently scheduled with course C271A. Letter grading.

181A. Complex Analysis and Integral Transforms. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Enforced requisite: course 82. Complex variables, analytic functions, conformal mapping, contour integrals, singularities, residues, Cauchy integrals; Laplace transform: properties, convolution, inversion; Fourier transforms: properties, convolution, FFT, applications in dynamics, vibrations, structures, and heat conduction. Letter grading.

182B. Mathematics of Engineering. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Enforced requisites: courses M20 or Civil Engineering M20 or Computer Science 31. Manufacturing today requires assembling of individual components into assembled products, shipping of such products, and eventually use, maintenance, and recycling of such products. Radio frequency identification (RFID) chips installed on components, subassemblies, and assemblies of products allow them to be tracked automatically as they move and transform through manufacturing supply chain. RFID tags have memory and small CPU that allows information about product status to be written, stored, and transmitted when tag data can be read by reader to enterprise software by way of RFID middleware layer. Study of how RFID is being utilized in manufacturing, with focus on automotive and aerospace. Letter grading.


187L. Nanoscale Fabrication, Characterization, and Biodetection Laboratory. (4) Lecture, two hours; laboratory, three hours; outside study, seven hours. Multidisciplinary course that introduces laboratory techniques of nanoscale fabrication, characterization, and welding/joining. Rapid prototyping. Electronics manufacturing. Microelectromechanical systems (MEMS) and nanotechnology. Letter grading.

M183B. Introduction to Microscale and Nanoscale Manufacturing. (4) (Same as Bioengineering M153, Chemical Engineering M153, and Electrical and Computer Engineering M153.) Lecture, two hours; laboratory, four hours; outside study, five hours. Enforced requisites: Chemistry 20A, Physics 1A, 1B, 4AL, 4BL. Introduction to general manufacturing methods, mechanisms, constraints, and microfabrication and nanofabrication. Focus on concepts, physics, and instruments of various microfabrication and nanofabrication processes that are currently applied in industry and academia, including various photolithographic technologies, physical and chemical deposition methods, and physical and chemical etching methods. Hands-on experience for fabricating microstructures and nanostuctures in modern cleanroom environment. Letter grading.

213C. Rapid Prototyping and Manufacturing. (4) Lecture, four hours; laboratory, two hours; outside study, six hours. Enforced requisites: course M20 or Civil Engineering M20 or Computer Science 31. Rapid prototyping (RP), solid freeform fabrication, or additive manufacturing has emerged as popular manufacturing technology to accelerate product creation in many industries. Rapid prototyping processes builds parts directly from CAD models. This novel manufacturing technology enables building of parts that have traditionally been impossible to fabricate because of their complex shape or variety in materials. In analogy to speed and flexibility of desktop publishing, rapid prototyping is also called desktop manufacturing, with actual three-dimensional solid objects instead of flat images. Methodology of rapid prototyping has also been extended into meso-/micro-/nano-scale to produce three-dimensional functional miniature components. Concurrently scheduled with course C291A. Letter grading.

155. Introduction to Radio Frequency Identification and Its Application in Manufacturing and Supply Chain. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Requisite: course M20 or Civil Engineering M20 or Computer Science 31. Manufacturing today requires assembling of individual components into assembled products, shipping of such products, and eventually use, maintenance, and recycling of such products. Radio frequency identification (RFID) chips installed on components, subassemblies, and assemblies of products allow them to be tracked automatically as they move and transform through manufacturing supply chain. RFID tags have memory and small CPU that allows information about product status to be written, stored, and transmitted when tag data can be read by reader to enterprise software by way of RFID middleware layer. Study of how RFID is being utilized in manufacturing, with focus on automotive and aerospace. Letter grading.

182C. Numerical Methods for Engineering Applications. (4) Lecture, four hours; discussion, one hour; outside study, seven hours. Requisites: courses M20 or Civil Engineering M20 or Computer Science 31, 82. Basic topics from numerical analysis having wide application in solution of practical engineering problems, computer arithmetic, and errors. Solution of linear and nonlinear systems. Algebraic eigenvalues and eigenvectors. Direct and iterative methods, polynomial interpolation, and finite difference approximations. Numerical solution of initial and boundary value problems for ordinary and partial differential equations. Letter grading.

and biodegradation. Basic physical, chemical, and biological principles related to these techniques, top-down and bottom-up (self-assembly) nanofabrication, nanocharacterization (AEM, SEM, etc.), and optical and electrochemical biosensors. Students encouraged to create their own ideas in self-designed experiments. Concurrently scheduled with course C287L. Letter grading.

188. Special Courses in Mechanical and Aerospace Engineering. (2 to 4) Lecture, two to four hours; outside study, eight hours. Special topics in mechanical and aerospace engineering for undergraduates taught on experimental or temporary basis, such as combustion and thermal insulation. Letter grading.

194. Research Group Seminars: Mechanical and Aerospace Engineering. (2 to 4) Seminar, two hours. Designed for undergraduate students who are part of a research group. Discussion of research methods and current literature in field. Student presentation of projects in research specialty. May be repeated for credit. P/NP or letter grading.

199. Directed Research in Mechanical and Aerospace Engineering. (2 to 4) Tutorial, to be arranged. Limited to juniors/seniors. Supervised individual research or investigation under guidance of faculty mentor. Only students enrolled in a project required. May be repeated for credit with school approval. Individual contract required; enrollment petitions available in Office of Academic and Student Affairs. Letter grading.

Graduate Courses


231B. Radiation and Nuclear Reactor Theory. (4) Lecture, four hours; outside study, eight hours. Requisite: course 105D. Radiative properties of materials and radiative energy transfer. Emphasis on fundamental concepts, including energy levels, and electromagnetic waves as well as analytical methods for calculating radiative properties and radiation transfer in absorbing, emitting, and scattering media. Applications cover laser-material interactions in addition to traditional areas such as combustion and thermal engineering. Letter grading.


231G. Microscopic Energy Transport. (4) (Formerly numbered 231G.) Lecture, four hours; outside study, eight hours. Requisite: course 105D. Exploration of basic principles of transportation of energy in natural and engineered systems by thermal conduction, electrons, phonons, and molecules. Study of statistical properties of heat carriers, common Landauer framework for heat flow, scattering and propagation of heat carriers, derivation of classical laws from microscopic transport equations, and deviation from classical laws at small scale. Term project. Concurrently scheduled with course C131G. Letter grading.

233. Nanotechnology. (4) Lecture, four hours; outside study, eight hours. Introduction to fundamental principles of energy transport, conversion, and storage at nanoscale, and recent developments in nanotechnology. Emphasis on nanotechnology. Focus on basics of thermal science, solid state, quantum mechanics, electromagnetics, and statistical physics. Topic discussions given for examples that connect technological application, fundamental challenge, and scientific-solution-based nanotechnology to improve device performance and energy efficiency. Letter grading.

235A. Nuclear Reactor Theory. (4) Lecture, four hours; outside study, eight hours. Underlying physics and mathematics of nuclear reactor (fission) core design. Diffusion theory, reactor kinetics, slowing down and thermalization, multigroup methods, introduction to nuclear reactor theory. Letter grading.

237. Fusion Engineering and Design. (4) Lecture, four hours; outside study, eight hours. Requisites: courses 105A, 105D. Introduction to basic concepts and tools of statistical thermodynamics. Abstractions of entropy, temperature, and chemical potential are explained by developing these concepts from ground up using only mathematical and statistical principles. Discussion of equilibrium properties of thermodynamic systems, including distribution functions. Provides sound foundation for further studies in transport phenomena, plasma, chemical kinetics, micro/nanoscale science and technology, and other related subjects. Concurrently scheduled with course C138. Letter grading.

239B. Seminar: Current Topics in Transport Phenomena. (2 to 4) Seminar, two to four hours; outside study, eight hours. Designed for graduate mechanical and aerospace engineering students. Lectures, discussions, student presentations, and projects in areas of current interest in transport phenomena. May be repeated for credit. S/U grading.

239F. Special Topics in Transport Phenomena. (2 to 4) Lecture, two to four hours; outside study, four to eight hours. Designed for graduate mechanical and aerospace engineering students. Advanced and current study of one or more aspects of heat and mass transfer, such as turbulence, stability and transition, buoyancy effects, variational methods, and measurement techniques. May be repeated for credit with topic change. S/U grading.

239G. Special Topics in Nuclear Engineering. (2 to 4) Lecture, two to four hours; outside study, four to eight hours. Designed for graduate mechanical and aerospace engineering students. Advanced study in areas of current interest to engineering, such as reactor safety, risk-benefit trade-offs, nuclear materials, and reactor design. May be repeated for credit with topic change. S/U grading.

239H. Special Topics in Fusion Physics, Engineering, and Technology. (2 to 4) Seminar, two to four hours; outside study, four to eight hours. Designed for graduate mechanical and aerospace engineering students. Advanced treatment of subjects selected from research areas in fusion science and engineering, such as instabilities in burning plasmas, alternative fusion concepts, inertial confinement fusion, fission-fusion hybrid systems, and fusion reactor safety. May be repeated for credit with topic change. S/U grading.


250B. Viscous and Turbulent Flows. (4) Lecture, four hours; outside study, eight hours. Requisite: course 150A. Fundamental principles of fluid dynamics applied to study of fluid resistance. States of fluid motion discussed in order of advanced Reynolds number; inviscid flow, potential flow, modified Navier-Stokes equations, vorticity dynamics, decomposition of flow fields, potential flow. Letter grading.

250C. Compressible Flows. (4) Lecture, four hours; outside study, eight hours. Requisites: courses 150A, 150B. Effects of compressibility in viscous and inviscid flows. Steady and unsteady supersonic and hypersonic flows; method of characteristics; small disturbance theories (linearized and hypersonic); shock dynamics. Letter grading.

250D. Computational Aerodynamics. (4) Lecture, four hours; outside study, eight hours. Requisites: courses 150A, 150B, 182C. Introduction to useful methods for computation of aerodynamic flow fields. Coverage of potential, Euler, and Navier/Stokes equations for subsonic to hypersonic flows. Letter grading.

250E. Spectral Methods in Fluid Dynamics. (4) Lecture, four hours; outside study, eight hours. Enforced requisites: courses 82, 182B, 182C, 250A, 250B. Introduction to basic concepts and techniques of various spectral methods applied to solving partial differential equations. Particular emphasis on techniques of solving unsteady three-dimensional Navier/Stokes equations. Topics include spectral representation functions, Fast Fourier transform, etc. Letter grading.

250F. Hypersonic and High-Temperature Gas Dynamics. (4) Lecture, four hours; outside study, eight hours. Requisite: courses 150A, 150B, 182C, 250A, 250D. Molecular and chemical description of equilibrium and non-equilibrium hypersonic and high-temperature gas flows, chemical thermodynamics and statistical thermodynamics for calculation of equilibrium flows of real gases, vibrational and chemical rate
treatments: ion and electron diffusion, gas diffusion, Child/Langmuir law, basic plasma devices, electron emission and work function, thermal distributions, vacuum and vacuum systems, space-charge, particle collisions and ionization, plasma discharges, sheaths, and ionization.

254A. Special Topics in Aerodynamics. (4) Lecture, four hours; outside study, eight hours. Enforced requisites: courses 82, 150A, 150B, 182B, 182C. Special topics of current interest in advanced aerodynamics. Examples include transonic flow, hypersonic flow, sonic booms, and unsteady aerodynamics. Letter grading.

255A. Advanced Dynamics. (4) Lecture, four hours; outside study, eight hours. Enforced requisites: courses 155, 169A. Variational principles and Lagrange equations. Kinetematic and dynamics of rigid bodies; procession and nutation of spinning bodies. Letter grading.

255B. Mathematical Methods in Dynamics. (4) Lecture, four hours; outside study, eight hours. Course requirements: varieties of stability; space-time inter- pretation; stability determination by simulation, linearization, and Lyapunov direct method; the Hamiltonian as a Lyapunov function; nonautonomous systems; aver- aging and perturbation methods of nonlinear analy- sis; parametric excitation and nonlinear resonance. Application to mechanical systems. Letter grading.

M256A. Linear Elasticity. (4) Same as Civil Engi- neering M230A. Lecture, four hours; outside study, eight hours. Requisite: course 156A or 166A. Linear elastostatics. Cartesian tensors; infinitesimal strain tensor; Cauchy stress tensor; strain energy; equilib- rium equations; linear constitutive relations; plane- strain elastic problems, holes, corners, inclusions, cracks; three-dimensional problems of Kelvin, Boussin- ois; scale of boundary integral equation method. Letter grading.

M256B. Nonlinear Elasticity. (4) Same as Civil Engi- neering M230B. Lecture, four hours; outside study, eight hours. Requisite: course M256A. Kinematics of deformation gradient tensor, nonlinear and linear strain ten- sors, strain displacement relations; balance laws, Cauchy and Piola stresses, Cauchy equations of mo- tion, balance of energy, stored energy; constitutive re- lations, elasticity, hyperelasticity, thermoelasticity; lin- earization of field equations; selection of solved prob- lems. Letter grading.


256F. Analytical Fracture Mechanics. (4) Lecture, four hours; outside study, eight hours. Requisite: course M256A. Review of modern fracture mechanics, elementary stress analyses; analytical and numerical methods for calculation of crack tip stress intensity factors; engineering applications in stiffened structures, pressure vessels, plates, and shells. Letter grading.

M257A. Elastodynamics. (4) Same as Earth, Plane- tary, and Atmospheric Sciences M257A. Lecture, four hours; outside study, eight hours. Enforced requisites: courses M256A, M256B. Equations of linear elasticity, Cauchy equation of motion, constitutive relations, boundary and initial conditions, principle of energy. Sources and waves in unbounded isotropic, anisotropic, and dissi- pative solids. Half-space problems. Guided waves in layered media. Applications to dynamic fracture, non- destructive evaluation (NDE), and mechanics of earth- quakes. Letter grading.

258A. Nanomechanics and Micromechanics. (4) Lecture, four hours; outside study, eight hours. Requi- site: course M256A. Analytical and computational modeling methods to describe mechanics of materials at scales ranging from atomic through microstruc- ture or transitional and up to continuum. Discussion of atomistic simulation methods (e.g., molecular dy- namics, Langevin dynamics, and kinetic Monte Carlo) and their applications at nanoscale. Developments and applications of dislocation dynamics and statis- tical mechanics methods in areas of nanostructure and microstructure self-organization, heterogeneous plastic deformation, material instabilities, and failure phenomena. Presentation and applications of these emerging modeling techniques to surfaces and interfaces, grain boundaries, dislocations and defects, surface growth, quantum dots, nanotubes, nanocu- tles, thin films (e.g., optical thermal barrier coatings and ultrasonar nanolayer materials), nano-identification, smart (active) materials, nanobending and micro- bending, and torsion. Letter grading.

259A. Seminar: Advanced Seminar in Fluid Mechan- ics. (4) Seminar, four hours; outside study, eight hours. Advanced study of topics in fluid mechanics, with intensive student participation involving assign- ment and presentation of research problems leading to term paper or oral presentation (possible help from guest lecturers). Letter grading.

259B. Seminar: Advanced Topics in Solid Mechan- ics. (4) Seminar, four hours; outside study, eight hours. Advanced study in various fields of solid me- chanics on topics which may vary from term to term. Topics include dynamics, elasticity, plasticity, and sta- bility of solids. Letter grading.

260. Current Topics in Mechanical Engineering. (2 to 4) Lecture, four hours; outside study, four to eight hours. Designed for graduate mechanical and aerospace engineering students. Lectures, discus- sions, and student presentations and projects in areas of current interest in mechanical engineering. May be repeated for credit. S/U grading.


261B. Finite Element Analysis for Solids and Struc- tures. (4) Lecture, four hours; outside study, eight hours. Requisite: course 156A or M256A, or consent of instructor. Strongly recommended requisites: courses M182, M256B, and familiarity with finite ele- ment method to classical and state-of-art modeling and design problems for solids and structures. Intro- duction of commercial mainstream finite element pro- grams (ABAQUS—and other) and practical use to it in advanced way. Topics include review of finite ele- ment method, static and dynamic linear elasticity, fi- nite deformation of hyperelastic materials, instability and bifurcation, fracture, and damage. Review of homogenization techniques as they apply to active materials. Active systems design, inch-worm, and bi- morph. Letter grading.

263A. Kinematics of Robotic Systems. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Recommended requisites: courses 155, 171A. Kinematical models of serial robotic manipulators, in- cluding spatial descriptions and transformations (Euler angles, Denavit-Hartenberg/ DH parameters, equiva- lent angle vector), frame assignment procedure, direct kinematics, inverse kinematics (geometric and alge- braic approaches), mechanical design topics. Letter grading.

263B. Dynamics of Robotic Systems. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Recommended requisite: course 263A. Recommended course 258B. Dynamics models of serial and parallel robotic manipulators, including review of spa-
283C. Control of Robotic Systems. (4) Lecture, four hours; discussion, two hours; outside study, six hours. Enforced requisites: course M280B, Sensors and actuators, flexible links, manipulability, redundant manipulators, human–robot interaction, teleoperation, haptics. Letter grading.


270B. Linear Optimal Control. (4) Lecture, four hours; outside study, eight hours. Requisite: course M269A. Probability and Stochastic Processes in Dynamical Systems. (4) Lecture, four hours; outside study, eight hours. Enforced requisites: courses 82, 107. Probability spaces, random variables, stochastic sequences and processes, expectation, conditional expectation, characteristic functions, exponential family, minimum variance estimator (Kalman filter) with applications. Concurrently scheduled with course C271A. Letter grading.

271B. Stochastic Estimation. (4) Lecture, four hours; outside study, eight hours. Enforced requisite: course C271A. Linear and nonlinear estimation theory, orthogonal projection lemma, Bayesian filtering theory, continuous model and risk estimators. Letter grading.


271D. Seminar: Special Topics in Dynamic Systems Control. (4) Seminar, four hours; outside study, eight hours. Seminar on current research topics in dynamic systems modeling, control, and applications. Topics selected from process control, nonlinear dynamics, and control, digital filters, adaptive filtering, and information theory. Letter grading.


275A. System Identification. (4) Lecture, four hours; outside study, eight hours. Requisites: courses 171A, M270A. Graduate-level introduction to analysis and design of multivariable control systems. Multivariable loop-shaping, performance requirements, model uncertainty representations, and robustness covered in detail from frequency domain perspective. Structured singular value and its application to controller synthesis. Letter grading.

276Y. Digital Programming. (4) (Same as Electrical and Computer Engineering M237.) Lecture, four hours; outside study, eight hours. Recommended requisite: course M270A or Electrical Engineering M240A. Linear algebra and elementary computer programming. Introduction to data structures with emphasis on linear algebra and computer programming. Letter grading.

278. Dynamics and Control of Biological Oscillations. (4) Lecture, four hours; outside study, eight hours. Requisites: courses 107, M270A. Analysis and design of dynamical mechanisms underlying biological control systems that generate coordinated oscillations. Topics include neuroendocrine systems, coupled oscillators, and biological rhythms. Letter grading.

280B. Microelectromechanical Systems (MEMS) Fabrication. (4) (Same as Bioengineering M250B and Electrical and Computer Engineering M250B.) Lecture, three hours; discussion, one hour; outside study, eight hours. Enforced requisite: course M183B. Advanced discussion of micromachining processes used to construct MEMS. Coverage of many lithographic, deposition, and etching processes, as well as their combination in process integration. Materials issues such as chemical resistance, corrosion, mechanical properties, and thermal/intrinsic stress. Letter grading.

281. Microsciences. (4) Lecture, four hours; outside study, eight hours. Requisites: courses 102, 103, 105D. Fundamental issues in the microscopic world and mechanical engineering of nanoscale devices. Topics include scaling, superhydrophobic surfaces and applications, and electrowetting and applications. Letter grading.

282. Microelectromechanical Systems (MEMS) Device Physics and Design. (4) (Same as Bioengineering M252 and Electrical and Computer Engineering M252.) Lecture, four hours; discussion, one hour; outside study, seven hours. Introduction to MEMS design. Design methods, design rules, sensing and actuation mechanisms, microsensors, and micro-actuators. Designing MEMS to be produced with both foundry and nonfoundry processes. Computer-aided design for MEMS. Design project required. Letter grading.


285. Interfacial Phenomena. (4) Lecture, four hours; outside study, eight hours. Requisites: courses 82, 103, 105A, 105D. Introduction to fundamental physical phenomena occurring at interfaces and application of their knowledge to engineering problems. Fundamental concepts of interfacial phenomena including surface tension, surfactants, interfacial thermodynamics, interfacial forces, interfacial hydrodynamics, and dynamics of triple line. Presentation of various applications including wetting, spreading and condensation, forms and emulsions, microelectromechanical systems, and biological systems. Letter grading.


M287. Nanoscience and Technology. (4) (Same as Electrical and Computer Engineering M287.) Lecture, four hours; outside study, eight hours. Introduction to fundamentals of nanoscale science and technology. Basic physical principles, quantum mechanics, chemi-
ical bonding and nanostructures, top-down and bottom-up (self-assembly) nanofabrication, nanocharacterization; nanomaterials, nanoelectronics, and nanobiotechnology. Introduction to new knowledge and techniques in nano areas to understand scientific principles behind nanotechnology and inspire students to create new ideas in multidisciplinary nano areas. Letter grading.

C287L. Nanoscale Fabrication, Characterization, and Biodeflection Laboratory. (4) Lecture, two hours; laboratory, outside study, seven hours. Multidisciplinary course that introduces fundamental techniques of nanoscale fabrication, characterization, and biodeflection techniques, enabling students to engage in cutting-edge research. Letter grading.

M297B. Material Processing in Manufacturing. (4) (Same as Materials Science M297B.) Lecture, four hours; outside study, eight hours. Enforced requisite: course 183A. Thermodynamics, principles of material processing and their applications to transport mechanisms of heat and mass, nucleation and growth of microstructure. Applications in casting/solidification, welding, sintering, chemical vapor deposition, infiltration, composites. Letter grading.

M297C. Composites Manufacturing. (4) (Same as Materials Science M297C.) Lecture, four hours; outside study, eight hours. Requisites: course 186C, Materials Science 151. Materials systems, fibers, fiber preforms, elements of processing, autoclave/compression molding, filament winding, pultrusion, resin transfer molding, assembly, material removal and assembly, metal and ceramic matrix composites, quality assurance. Letter grading.

298. Seminar: Engineering. (2 to 4) Seminar, to be arranged. Limited to graduate mechanical and aerospace engineering students. Seminars may be orga- nized in advanced technical fields. If appropriate, field trips may be arranged. May be repeated with topic change. Letter grading.

M299A. Seminar: Systems, Dynamics, and Control Topics. (2) (Same as Chemical Engineering M297 and Electrical and Computer Engineering M248S.) Seminar, two hours; outside study, six hours. Limited to graduate engineering students. Presentations of research topics by leading academic researchers from fields of systems, dynamics, and control. Students who work in these fields present their papers and results. S/U grading.

375. Teaching Apprentice Practicum. (1 to 4) Seminar, to be arranged. Preparation; apprentice personnel employment as teacher assistant, associate, or fellow. Teaching apprenticeship under active guidance and supervision of regular faculty member responsible for curriculum and instruction at UCLA. May be repeated for credit. S/U grading.

495. Teaching Assistant Training Seminar. (2) Seminar, two hours; outside study, four hours. Preparation: appointment as teaching assistant in department. Seminar on communication of mechanical and aerospace engineering principles, concepts, and methods; teaching assistant preparation, organization, and presentation of material, including use of visual aids; grading, advising, and rapport with students. S/U grading.

596. Directed Individual or Tutorial Studies. (2 to 8) Tutorial, to be arranged. Limited to graduate mechanical and aerospace engineering students. Petition forms to request enrollment may be obtained from assistant dean, Graduate Studies. Supervised instruction, students are taught compassionate management of human illness. Building on the biochemical, physiological, and behavioral foundations of the preclinical experience, students are taught to develop judgment and critical thinking skills through oral and written cases, journal clubs, and clinical skills curriculum. They apply and extend their clinical skills, medical knowledge, and judgment in the care of patients assigned to them under the immediate supervision of house officers and attending staff.

The department offers a broad range of advanced clinical clerkships in general and subspecialty ambulatory and hospital-based internal medicine at all the major affiliated centers. For more details on the Department of Medicine and courses offered, see the department website.

Medicine / 581

599. Research for and Preparation of PhD Dissertation. (2 to 16) Tutorial, to be arranged. Limited to graduate mechanical and aerospace engineering students. Usually taken after students have been advanced to candidacy. S/U grading.

MEDIATE

David Geffen School of Medicine

37-120 Center for Health Sciences
Box 951736
Los Angeles, CA 90095-1736

Medicine

310-825-6058

Alan M. Fogelman, MD (Casterfa Professor of Cardiology), Executive Chair
Jose Escarce, MD, PhD, Executive Vice Chair, Academic Affairs
Robert K. Oye, MD, Executive Vice Chair, Clinical Services
Dennis J. Slamon, MD (Bowyer Professor of Medical Oncology), Executive Vice Chair, Research

Scope and Objectives

The principal goal of the Department of Medicine is to educate students in the expert diagnosis and compassionate management of human illness. Building on the biochemical, physiological, and behavioral foundations of the preclinical experience, students are taught for and preparation of PhD dissertation. Students are encouraged and guided in developing a caring physician/patient relationship.

Instruction in the department is provided in all four years of medical school, with the third and fourth years constituting a continuous clinical experience. Students become integrated into a ward team and have significant ambulatory care experiences. They apply and extend their clinical skills, medical knowledge, and judgment in the care of patients assigned to them under the immediate supervision of house officers and attending staff.

The department offers a broad range of advanced clinical clerkships in general and subspecialty ambulatory and hospital-based internal medicine at all the major affiliated centers. For more details on the Department of Medicine and courses offered, see the department website.

Medicine

Lower-Division Courses

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

99. Student Research Program. (1 to 2) Tutorial (supervised research or other scholarly work), three hours per week per unit. Entry-level research for lower-division students under guidance of faculty mentor. Students must be in good academic standing and en-
rolled in minimum of 12 units (excluding this course). Individual contract required; consult Undergraduate Research Center. May be repeated, P/NP grading.

Upper-Division Courses

M160A. Health Outreach and Education for At-Risk Populations. (4) (Same as Public Health M160A.) Lecture, four hours; possible field observations. First in a series of courses exploring prevention of disease in at-risk populations, clinical services and referrals for disadvantaged, and effects of low socioeconomic status on academic achievement, career, and family. Lectures for academic, practitioners, with field visits, P/NP or letter grading.

M160B. Health Outreach and Education for At-Risk Populations. (4) (Same as Public Health M160B.) Lecture, two hours; discussion, two hours. Requisite: course M160A. Second in series of courses to explore prevention of disease in at-risk populations, clinical services and referrals for disadvantaged, and effects of low socioeconomic status on academic achievement, career, and family. Lectures by faculty and practitioners, discussion groups, and field activities including health education, P/NP or letter grading.

M160C. Health Outreach and Education to At-Risk Populations (4) (Same as Public Health M160C.) Lecture, two hours; fieldwork, six to eight hours. Requisites: courses M160A, M160B. Processes involved with designing, delivering, and assessing community health education programs, under supervision of professional staff, P/NP or letter grading.

180. Special Topics in Medicine. (4) Lecture, four hours; discussion, one hour. Medical topics of special interest to undergraduate students. Specific subjects may vary each term depending on particular interest of instructors and students. Topics may include East-West medicine and global medicine. May be repeated for credit with topic or instructor change. P/NP or letter grading.

185. Integrative East-West Medicine for Health and Wellness. (5) Lecture, five hours. Introduction to integrative health care and wellness, particularly therapeutical approaches originating from traditional Chinese medicine. Study of theoretical underpinnings of integrative medicine and traditional Chinese medicine, management of personal well-being through experiential learning of various therapeutic modalities, and evidenced-based research and clinical applications of integrative medicine. Topics include integrative East-West medicine and its role in prevention and health cultivation. Lectures, seminar, nutritional supplements, and hands-on practice. Letter grading.

188A. Individual Studies for USIE Facilitators. (1) Tutorial, to be arranged. Enrolled course: Honors College 101E. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor to discuss selected USIE seminar topic, conduct preparatory research, and begin preparation of syllabus. Individual contract with faculty mentor required. May not be repeated. Letter grading.

188B. Individual Studies for USIE Facilitators. (1) Tutorial, to be arranged. Enrolled course: Honors College 101E. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor to finalize course syllabus. Individual contract with faculty mentor required. May not be repeated. Letter grading.

188C. Individual Studies for USIE Facilitators. (1) Tutorial, to be arranged. Enrolled course: USIE facilitator. Individual study in regularly scheduled meetings with faculty mentor while facilitating USIE 88S course. Individual contract with faculty mentor required. May not be repeated. Letter grading.

199. Directed Research in Medicine. (2 to 8) Tutorial, two hours. Limited to juniors/seniors. Supervised individual research or investigation under guidance of faculty mentor. Cumulating paper required. May be repeated for credit. Individual contract required. P/NP or letter grading.

Graduate Courses


M256. Interdisciplinary Response to Infectious Disease Emergencies: Medicine Perspective. (4) (Same as Community Health Sciences M256, Nursing M258, and Oral Biology M256.) Lecture, three hours; discussion, one hour. Designed to instill in professionals an understanding of emergency health problems and coordinated response, with specific attention to bioterrorism. Examination of tools to help students prevent, detect, and intervene in infectious disease emergencies. Interdisciplinary sessions will be attended by students in Schools of Dentistry, Nursing, and Public Health during weeks two through five. Letter grading.

M256A-M260B. Methodology in Clinical Research I and II. (4, 4) (Same as Biostatistics M256A-M260B.) Lecture, four hours. Recommended preparation: MD, PhD, or dental degree. Requisites: Biostatistics 170A, 265A. Course M260A is requisite to M260B. Presentation of principles and practices of major disciplines underlying clinical research methodology, such as biostatistics, epidemiology, pharmacokinetics. S/U or letter grading.

M260C. Methodology in Clinical Research III. (4) (Same as Biostatistics M260C.) Discussion, four hours. Recommended preparation: MD, PhD, or dental degree. Presentation of principles and practices of major disciplines underlying clinical research methodology, such as biostatistics, epidemiology, pharmacokinetics. S/U or letter grading.

M261. Responsible Conduct of Research Involving Humans. (2) (Same as Biostatistics M261.) Lecture, four hours; discussion, two hours. Preparation: completion of one basic course in protection of human research subjects through Collaborative Institutional Training Initiative. Discussion of current issues in research conduct of clinical research, including reporting of research, basis for authorship, issues in genetic research, principles and practice of research on humans, conflicts of interest, Institutional Review Board (IRB), and related topics. S/U or letter grading.

M263. Clinical Pharmacology. (2) (Same as Biostatistics M263 and Psychiatry M263.) Lecture, two hours. Preparation: completion of professional health sciences degree (MD, DDS, DNSc, or Ph.D.). Overview of principles of clinical pharmacology, especially as they relate to clinical and translational medical and to advances in contemporary medicine such as targeting, gene therapy, and genomics. Letter grading.

M270C. Advanced Modeling Methodology for Dynamic Biomedical Systems. (4) (Same as Bioengineering M296A and Computer Science M296A.) Lecture, four hours; outside study, eight hours. Preparation: Electrical Engineering 142 or 142E or Mathematics 115A or Mechanical and Aerospace Engineering 171A. Development of dynamic systems modeling methodology for physiological, biomedical, pharmacological, chemical, and related systems. Control system, multicompartamental, noncompartmental, and input/output models, linear and nonlinear. Emphasis on model applications, limitations, and relevance in biomedical sciences and other limited data environments. Problem solving in PC laboratory. Letter grading.

M270D. Optimal Parameter Estimation and Experimental Design for Biomedical Systems. (4) (Same as Bioengineering M296B, Biostatistics M270, and Computer Science M296B.) Lecture, four hours; outside study, eight hours. Requisite: course M270C or Bioengineering CM296 or Biostatistics CM270. Estimation methodology and model parameter estimation algorithms for fitting dynamic system models to biomedical data. Model discrimination methods. Theory and algorithms for designing optimal experiments for developing and quantifying models, with special focus on optimal sampling schedule design for kinetic models. Exploration of PC software for model building and optimal experimental design via applications in physiology and pharmacology. Letter grading.


MICROBIOLOGY, IMMUNOLOGY, AND MOLECULAR GENETICS

College of Letters and Science and David Geffen School of Medicine

1602 Molecular Sciences
Box 951489
Los Angeles, CA 90095-1489

Microbiology, Immunology, and Molecular Genetics
310-825-8482

Jerome H. Zack, PhD, Chair

Professors
Frank U. Alber, PhD
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Peter J. Bradley, PhD
David A. Campbell, PhD
Irvin S.Y. Chen, PhD
Genhong Cheng, PhD
Asgad Dusgupta, PhD
James S. Economou, MD, PhD
David A. Haake, MD, In Residence
Kent L. Hill, PhD
Alex Hoffmann, PhD (Thomas M. Asher Endowed Professor of Microbiology)
Marcus Horwitz, MD
Patricia J. Johnson, PhD
Donald K. Jacobson, MD
Donald B. Kohn, MD
Aldons J. Lusis, PhD
Otoniel M. Martinez-Maza, PhD
Megan M. McEvoy, PhD
M. Carriere Nicell, PhD

Asim Dasgupta, PhD
Jerome H. Zack, PhD, Chair

Professors
Jeffrey F. Miller, PhD (Fred Kavli Professor of Nanosystems Sciences)
Robert L. Modlin, MD
Manuel L. Pencinet, MD, PhD
Stephen T. Smale, PhD
Maureen A. Su, MD
Owen N. Witte, MD (President Professor of Developmental Immunology, University Professor)
Otto O. Yang, MD
Jerome H. Zack, PhD
Z. Hong Zhou, PhD

Professors Emeriti
Arnold J. Berk, MD (President Professor Emeritus of Molecular Cell Biology)
Benjamin Bonavida, PhD
Frederick A. Eisinger, PhD
Lawrence T. Feldman, PhD
C. Fred Fox, PhD
Robert P. Ginsalus, PhD
Rafael J. Martinez, PhD
James N. Miller, PhD
Jeffrey H. Miller, PhD
Sherie L. Morrison, PhD
Debi P. Nayak, BVSc, PhD
Dan S. Ray, PhD
Larry Simpson, PhD
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Associate Professors
Steven J. Bensinger, VMD, PhD
Elissa A. Hallem, PhD
Beth A. Lazazzera, PhD
April D. Pyle, PhD

Assistant Professors
Oliver I. Fregoso, PhD
Melody Mari Hing Li, PhD
Timothy E. O’Sullivan, PhD
Lili Yang, PhD

Adjunct Associate Professor
Imke Schroeder, PhD

Adjunct Assistant Professors
Jordan P. Moberg-Parker, PhD
Elin R. Sanders, PhD

Scope and Objectives
Microbiology at UCLA is a diverse science that includes bacteriology, virology, immunology, genetics, molecular biology, and the study of single cells. The science has its roots in the fundamental human needs of health, nutrition, and environmental control, and it provides students with opportunities for study in the basic biological fields of genetics and cellular and molecular biology. Undergraduate students majoring in Microbiology, Immunology, and Molecular Genetics prepare for careers in biomedical research, medicine, dentistry, or other health professions, biotechnology and genetic engineering, industrial microbiology, agricultural or environmental sciences, public health, and law or bioethics, among others. The courses presented by the department lead to a Bachelor of Science degree and depend heavily on preparation in the biological sciences, chemistry, physics, and mathematics. The graduate program emphasizes the areas of molecular genetics, cell biology, immunology, cell and virus structure and morphogenesis, animal virology, general bacteriology and physiology, host/parasite relationships, medical microbiology, microbial genetics, microbial pathogenesis, and recombinant DNA research. Students are prepared for creative research careers in all of these fields. The objective of the department is to provide breadth in microbiology, immunology, and molecular genetics at the undergraduate level and depth and training in independent study and research for graduate students.

Undergraduate Study

Microbiology, Immunology, and Molecular Genetics BS

Learning Outcomes
The Microbiology, Immunology, and Molecular Genetics major has the following learning outcomes:

- Demonstrated knowledge of key disciplinary concepts
- Address scientific questions or solve problems using quantitative, computational, and inquiry-related skills, including developing hypotheses, designing and performing experiments, analyzing data, and interpreting results
- Execution of database searches for scientific literature and bioinformatics data related to investigatory tasks
- Reading, analysis, and use of scientific papers in the development of research projects, in discussions with peers and mentors, and as evidence to substantiate conclusions in written assignments
- Effective written and oral communication skills
- Work effectively in individual and collaborative contexts
- Value research and its relevance to one’s own life and society

Preparation for the Major

Life Sciences Core Curriculum

Required: Chemistry and Biochemistry 14A, 14B, 14L, 14C, and 14D, or 20A, 20B, 20L, 30A, 30AL, and 30B; Life Sciences 30A, 30B, and 40 or Statistics 13, or Mathematics 3A, 3B, 3C, and Statistics 13, or 31A, 31B, 32A, and Statistics 13; Physics 1A, 1B, 1C, 4AAl, and 4B, or 5A, 5B, and 5C.

Students must also complete one of two life sciences sequences—either Life Sciences 1, 2, 3, 4, and 23L, or 7A, 7B, 7C, and 23L. They may not substitute courses in either sequence.

Each core curriculum course must be passed with a grade of C– or better, and all courses must be completed with an overall grade-point average of 2.0 or better. Students receiving a grade of D or lower in two core curriculum courses, either in separate courses or repetitions of the same course, are subject to dismissal from the major.

Transfer Students

Transfer applicants to the Microbiology, Immunology, and Molecular Genetics major with 90 or more units must complete the following introductory courses prior to admission to UCLA: one year of general biology with laboratory for majors, preferably equivalent to Life Sciences 1 and 2, or 7A, 7B, and 7C, one year of calculus, one year of general chemistry with laboratory for majors, and one semester of organic chemistry with laboratory. A second semester of organic chemistry or one year of calculus-based physics is strongly recommended but not required for admission.

Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

Students intending to major in Microbiology, Immunology, and Molecular Genetics may seek counseling and petition to enter the major in the Student Affairs Office, 16028 Molecular Sciences.

The Major
Two plans are offered by the department.

Plan I—Research Immersion Laboratory

Required: Ten courses as follows: (1) Five foundation courses: Chemistry and Biochemistry 13SA, 13SB or Microbiology, Immunology, and Molecular Genetics 132, Life Sciences 107, Microbiology, Immunology, and Molecular Genetics 101, C185A, (2) two courses from one of the following groups: (a) Microbiology, Immunology, and Molecular Genetics 103AL and 103BL or (b) 109AL and 109BL, (3) two focus elective courses selected from Chemistry and Biochemistry 13L, Microbiology, Immunology, and Molecular Genetics 102, 105, 106, 107, 132, CM156, 158, 168, CM256, Molecular Cell, and Developmental Biology 138, 165A, and (4) one general elective course selected from any course under item 3 above, Bioengineering 100, CM145, CM178, Biostatistics 100A, Chemistry and Biochemistry 103, 110A, M117, 13A, C140, 153B, 153C, 153L, 154, 156, CM160A, 171, 172, C181, Computer Science CM122, CM122, CM24, Ecological and Evolutionary Biology 121, 135, 137, 162, Epidemiology 101, Human Genetics C144, Microbiology, Immunology, and Molecular Genetics C122, 174, 185B, 191H, 198C, 199 (may be taken once), Molecular, Cell, and Developmental Biology 100, 104AL, 138, M140, C141, 143, 144, C150, 165A, 168, 172, M175A, M175B, M175C, 187AL, Neuroscience M101A, M101B, M101C, Physiological Science 121, 124, 125, 126, Statistics 100A, 100B.
No more than 4 units of course 199 or a combination of 198C and 199 may be applied toward the general electives under Plan I.

Plan II—Advanced Independent Research

Required: Twelve courses as follows: (1) five foundation courses: Chemistry and Biochemistry 13SA, 13SB or Microbiology, Immunology, and Molecular Genetics 132, Life Sciences 107, Microbiology, Immunology, and Molecular Genetics 101, C185A, (2) Microbiology, Immunology, and Molecular Genetics 196A, 196B, (3) Microbiology, Immunology, and Molecular Genetics 196A, 196B or Molecular, Cell, and Developmental Biology 190A, 190B, (4) two focus elective courses selected from Chemistry and Biochemistry 13L, Microbiology, Immunology, and Molecular Genetics 102, 105, 106, 107, 132,
Microbiology, Immunology, and Molecular Genetics

Lower-Division Courses


6. Microbiology for Nonmajors. (4) Lecture, four hours. Not open for credit to students with credit for course 101. Designed for nonscience students; introduction to biology of microorganisms (bacteria, viruses, protozoa, algae, fungi), their significance as model systems for understanding fundamental cellular processes, and their role in human affairs. P/NP or letter grading.

7. Medical Microbiology for Nursing Students. (4) Lecture, three hours; discussion, one hour. Requisite: Life Sciences 30A or 30B or Mathematics 3A or 31A. Limited to Nursing majors. Introduction to biology of microbial pathogens, their role in development of human immune response, and presentation of symptoms and disease caused by microbial infections. Letter grading.

10. Medical Microbiology. (4) Lecture, three hours; discussion, one hour. Requisite: Life Sciences 30A or 30B. Designed for nonscience students; introduction to biology of microbial pathogens, their role in development of human immune response, and presentation of symptoms and disease caused by microbial infections. Letter grading.

15. Nanoscale Microscopy Laboratory. Lecture, 26 hours; laboratory, nine hours. Recommended prerequisites: high school biology, chemistry, and physics. Designed as one-week summer course for high school students. Exploratory introduction to three key microscopy techniques for nanoscale research: fluorescence microscopy, scanning probe microscopy, and electron microscopy. Nanoscopy is umbrella term that encompasses one diverse interdisciplinary branch of modern science research, including molecular sciences, biotechnology, material science, chemistry, biochemistry, and various fields of engineering. Offered in summer only. P/NP grading.

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

89. Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed to complement lower-division lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

89HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as an additional lower-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

99. Student Research Program. (1 to 2) Tutorial (supervised research or other scholarly work), three hours per week per unit. Entry-level research for lower-division students under guidance of faculty mentor. Students must be in good academic standing and enrolled in minimum of 12 units (excluding this course). Individual contracts. Undergraduate Research Center. May be repeated. P/NP grading.

Upper-Division Courses

100L. Microbiology Laboratory for Professional Schools. (3) Lecture, two hours; laboratory, four hours. Requisites: Life Sciences 3 and 4, or 7A, 7B, and 23L with grades of C+ or better. Recommended prerequisite: course 101. Limited to nonmajors. Experimental techniques of microbiology, with emphasis on cultivation and characterization of bacteria. Laboratory exercises include light microscopy, quantitative techniques, and identification methods. Students learn to work effectively in groups to perform experiments, record observations, and analyze results. Letter grading.

101. Introductory Microbiology. (4) Lecture, three hours; discussion, one hour. Requisites: Life Sciences 3 and 4, or 7A, 7B, and 23L. Historical foundations of microbiology; introduction to bacterial structure, physiology, biochemistry, genetics, and ecology. Letter grading.

102. Introductory Virology. (4) Lecture, three hours; discussion, one hour. Requisites: course 101, 106, or 175, 7A, 7B, and 23L. Course 103AL is required to take course 102L. Limit to majors. Microbiology, Immunology, and Molecular Genetics 103AL, 103BL, and 103CL. Introduction to viruses, viral replication, and viral diseases. Letter grading.

103AL. Research Immersion Laboratory in Virology. (5) Lecture, two and one half hours; laboratory, eight hours. Requisites: course 101, Life Sciences 3, 4, and 23L, or 7A, 7B, and 23L. Course 103AL is required to take course 103BL. Limit to majors. Microbiology, Immunology, and Molecular Genetics 103AL, 103BL, and 103CL. Introduction to viruses, viral replication, and viral diseases. Letter grading.

103BL. Research Immersion Laboratory in Virology. Letter grading.

103CL. Research Immersion Laboratory in Virology. Letter grading.

Graduate Study

Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Division website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Graduate Degrees

The Department of Microbiology, Immunology, and Molecular Genetics offers Master of Science (MS) and Doctor of Philosophy (PhD) degrees in Microbiology, Immunology, and Molecular Genetics. Applicants interested in studying with faculty in the department are encouraged to apply to an appropriate graduate program in Graduate Programs in Bioscience.

CM156, 158, 168, CM256, Molecular, Cell, and Developmental Biology 138, 165A, and (5) one elective course selected from any course under item 3 above, Bioengineering 100, CM145, CM178, Biostatistics 100A, Chemistry and Biochemistry 103, 110A, M176, 1340, 153B, 156, CM160A, 171, 172, C181, Computer Science CM121, CM122, CM124, Ecology and Evolutionary Biology 121, C135, 137, 162, Epidemiology 100, Human Genetics CM144, Microbiology, Immunology, and Molecular Genetics 103AL, 103BL, 109AL, 109BL, C122, 174, C185B, 191H, 198, 199, Molecular, Cell, and Developmental Biology 100, 104AL, 138, M140, C141, 143, 144, C150, 165A, 168, 172, M175A, M175B, M175C, 187AL, Neuroscience M101A, M101B, M101C, Physiological Science 121, 124, 125, 128, Statistics 100A, 100B.

No more than 4 units of course 198C or 199 may be applied toward the general electives under Plan II.

Plan II requires submission and approval of an admissions application. Detailed information may be obtained at the Student Affairs Office, 1602B Molecular Sciences.

Each major course must be taken for a letter grade of C– or better, and students must have a minimum overall grade-point average of 2.0 or better in the major. Students receiving a grade of D or below in two major courses, either in separate courses or repetitions of the same course, are subject to dismissal from the major.

Honors Program

Overall grade-point averages of 3.2 and 3.5 in the preparation for the major and major respectively are required to apply for departmental honors. In addition students must have junior standing and the sponsorship of a faculty adviser from the department. The core of the program consists of Microbiology, Immunology, and Molecular Genetics 198A, 198B, and 198C research, culminating in a thesis. If the thesis is accepted by the honors committee and students complete all major requirements with a GPA of at least 3.5, they are awarded the bachelor’s degree with honors. Honors content noted on transcript. Letter grading.

10. Medical Microbiology for Nursing Students. (4) Lecture, three hours; discussion, one hour. Requisite: Life Sciences 30A or 30B or Mathematics 3A or 31A. Limited to Nursing majors. Introduction to biology of microbial pathogens, their role in development of human immune response, and presentation of symptoms and disease caused by microbial infections. Letter grading.

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

89. Honors Seminars. (1) Seminar, three hours. Limited to students under guidance of faculty mentor. Students must be in good academic standing and enrolled in minimum of 12 units (excluding this course). Individual contracts. Undergraduate Research Center. May be repeated. P/NP grading.


109AL. Research Immersion Laboratory in Microbiology. (5) Lecture, three hours; laboratory, eight hours. Requisites: course 101, Life Sciences 3, 4, and 23L, or 7A, 7B, and 23L. Course 109AL is enforced requisite to 109BL. Limited to Microbiology, Immunology, and Molecular Genetics majors and minors. Cells, Cell, and Developmental Biology majors. Research-oriented laboratory experience designed to promote discovery of novel microorganisms. Working in teams or biomedical individual studies through the use of corporate techniques in microbiology and molecular biology and involve use of bioinformatics tools and phylogenetic software for data analysis. Emphasis on reading and understanding scientific literature as well as improving critical thinking skills such as ability to create and evaluate hypotheses or experimentally address scientific questions. Critical aspects of research process, including record keeping, ethics, laboratory safety and citizenry, mechanics of scientific writing, and project responsibilities and ownership. Letter grading.

109BL. Advanced Research Analysis in Microbiology. (4) Laboratory, six hours. Requisites: course 109AL, Life Sciences 40 or Statistics 13. Limited to Microbiology, Immunology, and Molecular Genetics premajors and majors designed to provide students with authentic, discovery-based research experience in life sciences. Investigation to be primarily computational in nature whereby students use bioinformatics or mathematical software to interpret, explore, or refine datasets. Use of graphics software to prepare figures and illustrations for presentations, posters, and websites (database entries). Research accomplishment in weekly seminar-style meetings in which student groups create PowerPoint slides and formally present results to class. Production of team poster and final report describing entire research project requires Letter grading.

C122. Mouse Molecular Genetics. (2) Seminar, two hours. Requisites: Life Sciences 4, or 7A, 7B, and 7C. Designed for students doing research with mice. During past 25 years, molecular revolution has greatly increased our understanding of mouse genetics. Today, mouse is primary experimental model in virtually all fields of biology and biomedicine. Seminar forum for in-depth discussion of tools and technologies of mouse genetics and their application to functional genomics, complex traits, stem cell biology, developmental biology, epigenetics, and genetic dissection of diseases. Concurrently scheduled with course C222. P/NP grading.

123. Advanced Annotation and Comparative Genomics. (4) Lecture, two and one half hours; computer laboratory, six hours. Requisite: course 103AL or Molecular, Cell, and Developmental Biology 187AL with grade of B– or better. Participation in mouse-based research experience, working as research team to annotate microbial genomes using bioinformatics techniques involving variety of online databases. Investigation of cellular pathways and structures as means to discover novel genes and unusual variations in classical systems. Results of high-quality annotations efforts may lead to publication in peer-reviewed science journal. Part of DOE Joint Genome Institute Undergraduate Research in Microbial Genome Annotation education program. Offered in summer only. Letter grading.

C134. Ethics and Accountability in Biomedical Research. (2) Seminar, two hours. Designed for graduate students and undergraduates who have credit for life sciences or biomedical individual studies 119 course. Responsibilities and ethical conduct of investigators in research, data management, mentorship, grant applications, and publications. Responsibilities to peers, sponsoring institutions, and society. Conflicts of interest, disclosure, animal subject welfare, human subject protection, and areas in which investigational goals and certain societal values may conflict. Concurrently scheduled with course C234. P/NP grading.

135A. Special Courses in Microbiology, Immunology, and Molecular Genetics. (4) Seminar, four hours. Requisites: Life Sciences 3 and 4, or 7A, 7B, and 23L. Departmentally sponsored experimental or temporary courses, such as those taught by visiting faculty members, sponsored for credit with topic change. P/NP or letter grading.

188B. Special Courses in Microbiology, Immunology, and Molecular Genetics. (2) Seminar, two hours. Requisite: Life Sciences 3, or 7A, 7B, and 23L. Departmentally sponsored experimental or temporary courses, such as those taught by visiting faculty members. May be repeated for credit with topic change. P/NP or letter grading.

188SA. Individual Studies for USIE Facilitators. (1) Tutorial, to be arranged. Enforced requisite: Honors Collegium 101E. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor to discuss selected USIE seminar topic, conduct preparatory research, and begin preparation of syllabus. Individual contract with faculty mentor required. May not be repeated. Letter grading.


188SC. Individual Studies for USIE Facilitators. (2) Tutorial, to be arranged. Enforced requisite: course 188SB. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor while facilitating USIE course. Individual contract with faculty mentor required. May not be repeated. Letter grading.

189. Advanced Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to undergraduate lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

189HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to upper-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

191H. Honors Research Seminars: Microbiology, Immunology, and Molecular Genetics. (2) Seminar, two hours. Requisite or corequisite: course 196A or 198A. Enforced corequisite: course 196A or 198A. Students give presentations similar to those of research symposium in which speakers discuss research project, methodological approaches, results, and conclusions. How to write research papers as well as prepare and present scientific posters. Production of deliverables that demonstrate research achievements and creation of sense of pride for work accomplished as skilled researchers. Letter grading.

191W. Honors Seminar: Microbiology, Immunology, and Molecular Genetics. (2) Seminar, two hours. Enforced requisite: course 196A or 198A. Preparation for departmental honors. Individual study in regularly scheduled meetings with faculty mentor while facilitating USIE course. Individual contract with faculty mentor required. May not be repeated. Letter grading.

193A. Journal Club Seminars: Microbiology, Immunology, and Molecular Genetics. (1) Seminar, one hour. Limited to undergraduate students. Discussion of recent research literature, with focus on thesis topics/areas that are students’ work or aspect of departmental requirements. One-hour presentation of student thesis research and current literature associated with it. Required. May be repeated for credit. Letter grading.

192. Undergraduate Practicum in Microbiology, Immunology, and Molecular Genetics. (2) Seminar, six hours. Limited to junior/senior departmental majors. Training and supervised practicum for advanced undergraduate students. Students assist in preparation of materials and development of innovative programs under guidance of faculty members in small course settings. Consult Student Affairs Office for further information. May not be applied toward course requirements for departmental majors. May be repeated for credit. P/NP or letter grading.

193A. Journal Club Seminars: Microbiology, Immunology, and Molecular Genetics. (1) Seminar, one hour. Limited to undergraduate students. Discussion of recent research literature, with focus on thesis topics/areas that are students’ work or aspect of departmental requirements. One-hour presentation of student thesis research and current literature associated with it. May be repeated for credit. Letter grading.

CM156. Human Genetics and Genomics. (5) Same as Molecular, Cell, and Developmental Biology CM156. Lecture, three hours; discussion, one hour. Requisites: Life Sciences 3, 4, and 23L, or 7A, 7B, and 7C. Application of genetic principles in human populations with emphasis on genomics. Family studies, population cloning, Mendelian and common diseases, cancer genetics, animal models, cytogenetics, pharmacogenetics, population genetics, and genetic counseling. Seminar focuses on current questions in fields of medical and human genetics and methodologies appropriate to answer such questions. Concurrently scheduled with course CM156. Letter grading.

158. Microbial Genomics. (4) Lecture, three hours; discussion, one hour. Requisite: course 101, Chemistry 153A. Evolution, biodiversity, and sequencing of genomes; bacterial and viral genomes; bioinformatics; gene knockouts; genomics of antibiotic resistance; proteomics. Guest lecturers from department and related departments who discuss key papers with focus on the area of expertise. Letter grading.

168. Molecular Parasitology. (4) Lecture, three hours; discussion, one hour. Requisites: Life Sciences 3 and 4, or 7A, 7B, and 23L. Survey of parasitic protozoa not only as parasites that interact with host, but also as model eukaryotes of basic biological phenomena such as gene regulation, molecular development, cell-cell interactions, molecular evolution, and novel biochemical pathways. Letter grading.

174. Advanced Topics in Molecular Parasitology. (2) Lecture, two hours. Requisites: course 168, Life Sciences 3 and 4, or 7A, 7B, and 23L. Examination of recent advances in molecular biology of parasites and host/parasite relationship. Specific topics include parasite development and invasion in the parasitem, RNA editing, prospects for parasitic vaccines. Letter grading.

180A. Scientific Analysis and Communication I. (2) Seminar, two hours. Enforced corequisite: course 196A or 198A. Focuses on writing scientific articles and giving presentations, introducing research topics using relevant primary literature. Critical aspects of research process, including record keeping, ethics, laboratory safety and citizenry, mechanics of scientific writing, diverse approaches to research, and project responsibilities and ownership. Acquisition of in-depth and broad knowledge about student research projects and written communication skills, and full appreciation of process of doing good science and becoming skilled researchers. Letter grading.

180B. Scientific Analysis and Communication II. (2) Seminar, two hours. Enforced requisite: course 196A, and Life Sciences 40 or Statistics 13. Enforced corequisite: course 196B or 198B. Students give presentations similar to those of research symposium in which speakers discuss project goals, methodological approaches, results, and conclusions. How to write research papers as well as prepare and present scientific posters. Production of deliverables that demonstrate research achievements and creation of sense of pride for work accomplished as skilled researchers. Letter grading.

C185A. Immunology. (5) Formerly numbered 185A. Lecture, three and one half hours; discussion, 90 minutes. Requisites: Chemistry 153A, Life Sciences 3, 4, and 23L, or 7A, 7B, 7C, and 23L. Not open for credit to students with credit for course 261. Comprehensive study of experimental immunobiology and immunomicrobiology; cellular and molecular aspects of humoral and cellular immune reactions. Concurrently scheduled with course C285B. Letter grading.

C185B. Advanced Immunology and Applications. (2) Formerly numbered 185B. Lecture, 90 minutes. Requisite: course C185A. Cover topics similar to those presented in life sciences 185A expansion on host and parasite relationship. Specific topics include parasitism and novel biochemical pathways. Letter grading.

185A. Special Courses in Microbiology, Immunology, and Molecular Genetics. (4) Seminar, four hours. Requisites: Life Sciences 3 and 4, or 7A, 7B, and 23L. Departmentally sponsored experimental or temporary courses, such as those taught by visiting faculty members, sponsored for credit with topic change. P/NP or letter grading.
Graduate Courses

C222. Mouse Molecular Genetics. (2) Seminar, two hours. Requisites: Life Sciences 4, or 7A, 7B, and 7C. Designed for students doing research with mice. During past 25 years, molecular revolution has greatly increased our capacity to understand molecular genetics and their application to functional genomics, complex traits, stem cell biology, developmental biology, epigenetics, and genetic dissection of diseases. Concurrently scheduled with course C122.

C229. Molecular Mechanisms of Host/Pathogen Interaction. (4) (Same as Pathology M229.) Lecture, two hours; discussion, two hours. Enforced requisites: Molecular Biology 254A through 254D. Molecular mechanisms of molecular interactions with eukaryotic host cells that result in disease or pathogen survival. Topics include pathogenesis of common viruses, bacteria, fungi, and parasites, basis of toxin-mediated cellular damage, and immune suppression of microbial tissue damage. Letter grading.

C234. Ethics and Accountability in Biomedical Research. (2) Seminar, two hours. Designed for graduate students in scientific disciplines who have credit for life sciences or biomedical individual studies 199 course. Responsibilities and ethical conduct of investigators in research, data management, mentorship, grant application and funding, and professional responsibilities to peers, sponsoring institutions, and society. Conflicts of interest, disclosure, animal subject welfare, human subject protection, and areas in which investigational animal studies are conducted. Concurrently scheduled with course C134. S/U grading.

CM256. Human Genetics and Genomics. (5) (Same as Molecular, Cell, and Developmental Biology CM256.) Lecture, three hours; discussion, one hour. Requisites: Life Sciences 7A, 7B, and 7C. Application of genetic principles in human populations, with emphasis on genomics, family studies, positional cloning, Mendelian and common diseases, cancer genetics, animal models, cytogenetics, pharmacogenomics, population genetics, and genetic counseling. Lectures and readings in literature, with focus on current questions in fields of medical and human genetics and methodologies appropriate to answer such questions. Concurrently scheduled with course CM156. Independent research project required of graduate students. Letter grading.

261. Molecular and Cellular Immunology. (4) Lecture, four hours. Strongly recommended requisites: Molecular Biology 254A through 254D. Designed for students doing research with mice. Comprehensive course for graduate students and selected undergraduates covering fundamentals and recent advances in molecular and cellular immunology. Oral presentation required. S/U or letter grading.

262A-262B-262C. Seminars: Current Topics in Immunology of Cancer. (2–2–2) Seminar, two hours. Designed for graduate students (or undergraduate students with consent of instructor). Review of recent literature in immunology, biology, and biochemistry of cancer, with emphasis on fundamental studies involving cell-mediated immunity, humoral response, tumor specific antigens, and new techniques. Discussion of reports on scientific meetings. Each course may be repeated for credit. S/U or letter grading.

225. Immunology. (5) Lecture, three hours; discussion, 90 minutes. Requisites: Chemistry 153A, Life Sciences 3, 4, and 23L, or 7A, 7B, and 7C. Not open for credit to students with credit for course 261. Comprehensive study of general experimental immunobiology and immunochemistry; cellular and molecular aspects of humoral and cellular immune reactions. Concurrently scheduled with course C185A. Letter grading.

215B. Advanced Immunology and Applications. (2) Lecture, 90 minutes; discussion, 90 minutes. Designed for one course in immunology. Covers similarities and differences between host immune reactions to bacterial and viral infections, and balance required between immune and inflammatory responses. Discussion of various strategies to enhance our immune system against invasion by pathogens or cancer cells without triggering inflammatory and autoimmune diseases, including new cancer immunotherapies. Concurrently scheduled with C185B. Letter grading.

286. Seminar: Research Topics in Microbiology, Immunology, and Molecular Genetics. (1 to 4) Seminar, two hours; research group meeting, one hour. Limited to departmental graduate students. Advanced study and analysis of current topics in microbiology, immunology, and molecular genetics. Discussion of current research and literature in research specialty of faculty member teaching course. S/U grading.

298. Current Topics in Microbiology, Immunology, and Molecular Genetics. (2) Seminar, two hours. Presentation of student oral critiques and participation in discussions on assigned topics. May be repeated for credit. S/U grading.

375. Teaching Apprentice Practicum. (1 to 4) Seminar, to be arranged. Preparation: apprentice personnel employment as teaching assistant, associate, or fellow. Teaching apprenticeship under active guidance and supervision of regular faculty member required for in-depth discussion of tools and technologies of teaching assistants and to be taken in term in which they teach. In odd weeks, discussion of developments in student classes, with instruction on digital pedagogy and evaluation of student teaching. In even weeks, participation in online discussion forum case studies. S/U grading.


Military Science — Army ROTC

College of Letters and Science

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Scope and Objectives

In accordance with the National Defense Act of 1920 and with the concurrence of the Regents of the University of California, a unit of the Army Senior Divi-
sion Reserve Officers’ Training Corps (ROTC) was established on the Los Angeles campus of in July 1920. Navy and Air Force units were established in 1938 and 1949 respectively.

This voluntary training in the Army ROTC program allows students to qualify for an officer’s commission in the Army while completing their college education. The ROTC curricula are not considered academic majors, but ROTC courses may be taken as free electives and applied toward the total course requirements of a major. For students contracted in the Military Science Department, 26 units of military science credit may be applied toward the requirements for the bachelor’s degree. The ROTC program is also available through UCLA Extension.

All three ROTC departments offer voluntary four- and three-year programs for freshmen and sophomores. The Army and Navy/Marine Corps also offer a two-year program for current and transfer students. All have leadership laboratories that teach leadership and management skills.

All commissions are reserve commissions. Active duty obligation following commissioning varies depending on branch of service and designated career field or occupational specialty. The Army offers both active- and reserve-duty opportunities directly after commissioning.

**Scholarships**

ROTC scholarships are awarded on a competitive basis to U.S. citizens regardless of parents’ income. Scholarships cover full tuition or housing (on or off campus) up to $10,000, a $1,200 allowance for books and fees, and a tax-free monetary allowance of $420 per month during the academic year. Application for four-year scholarships may be obtained online. Completed four-year applications should be submitted by January 10 of the year preceding college matriculation. Two- and three-year scholarship applications may be obtained from the Military Science Department by e-mail or by calling 310-825-7381, and are considered when received.

**Army ROTC Program**

Army ROTC is a program that enables students to become officers in the U.S. Army, Army Reserves, or Army National Guard while earning a college degree. The curriculum supplements students’ academic majors by offering elective courses ranging from leadership and management to military law. Courses are augmented with leadership laboratories that stress practical skills such as first aid, land navigation, survival techniques, rappelling, military tactics, and scenario-driven leadership reaction courses. Non-ROTC students may enroll in many of the military science courses without enrolling in the ROTC program.

Additionally, students who decide to become Army officers can receive summer training in military parachuting (Airborne School at Fort Benning, GA), helicopter operations that include rappelling from a hovering helicopter (Air Assault School in Hawaii), and mountain engineering operations (Northern Warfare School in Alaska).

Scholarships are available for two, three, and four years of academic study and are awarded on a competitive basis. Army scholarships pay for full tuition and mandatory fees or housing, up to $10,000, and provide a stipend of $4,200 per year and a $1,200 book allowance. Non-scholarship, contracted ROTC cadets also receive the stipend of $4,200 per year. Students in the program also compete for over $50,000 in merit-based scholarships provided annually by various private organizations that support the Army ROTC program. Additionally, students may work part-time as officer trainees in local Army Reserves or National Guard units through the simultaneous membership program (SMP). Contracted students can fly free on military aircraft within the continental U.S. on a space-available basis.

Students may select a branch of the Army in which to be commissioned from 16 specialty fields, including military intelligence, aviation, signal communications, finance, logistics, nursing, and engineering. Prior to completion of the ROTC program, students may request to go on active duty or serve part-time in the Army Reserves or National Guard.

**Undergraduate Study**

Students aspiring to become Army officers follow prescribed course sequences with the Military Science Department and a physical fitness program. Generally, the courses consist of one 2- to 4-unit course per term and physical fitness sessions one to three times per week, depending on the participation-level requirements.

The military science curriculum is divided into two parts: (1) the Basic Course, two years of lower-division study during which students must complete six military science courses, and (2) the Advanced Course, two years of upper-division study consisting of six military science courses, one military history course, and a five-week summer camp.

Army ROTC students must satisfy the military history requirement by completing Military Science 110 or another history course approved by the chair.

Transfer students and others who were unable to enroll in the Basic Course can receive equivalent credit in several different ways (see Two-Year Program below).

Admission to the Advanced Course is limited to selected students who meet all academic and physical requirements. Students in this course receive a subsistence allowance of $420 per month for 10 months during each of the two academic years, plus military science uniforms. After completion of the Advanced Course and graduation, students have the opportunity to be commissioned as second lieutenants in one of the Army’s 16 specialty areas or in the Reserve Officers’ Training Corps (ROTC). The second lieutenant in the Army Reserves, or Active Army. Students’ preferences are a major factor in determining which specialty is awarded.

Students selected for Advanced ROTC must attend a five-week leadership development and assessment course between their Military Science III and IV years. Cadets receive an allowance for travel expenses and are paid for attendance.

The active duty obligation for those students selected to enter the Reserves or National Guard is for initial training, and only for a period of several months. The active duty obligation for those students commissioned into the Active Army is three years. Students who accept ROTC scholarships and enter the Active Army serve one additional year. ROTC students wishing to obtain certain advanced degrees may be granted a delay in reporting to their initial assignment.

**Four-Year Program**

Students are enrolled in the Basic Course (freshman and sophomore years) on a voluntary basis. After completion of the Basic Course and before entrance into the Advanced Course (junior and senior years), students are required to execute a contract with the Department of the Army agreeing to complete the Advanced Course and accept a commission if offered.

**Two-Year Program**

The two-year program is designed for students who receive placement credit for two years of ROTC and directly enter the Advanced Course. Placement credit may be given for completing three years of high school Junior ROTC, attending a paid ROTC Leader’s Training Course, membership in the Army Reserves or National Guard, completing two years of college-level Air Force or Navy ROTC, or previous active duty military service. The Army also allows enrollment in the two-year program while students attend graduate school.

**Commissioning**

Successful completion of the Advanced Course program and a bachelor’s degree may lead to a commission as a second lieutenant in the Army Reserves, National Guard, or Active Army.

**Military Science**

**Lower-Division Courses**

2. Leadership Laboratory. (No credit) Laboratory, three hours (lower-division cadets) or four hours (upper-division cadets). All cadets must be concurrently enrolled in a military science course; upper-division cadets must also be under a contracted obligation between department. Designed to allow cadets to apply leadership techniques and military skills taught in classroom and develop their confidence as future military officers. No grading.

11. Foundations of Officership. (2) Lecture, one hour. Introduction to issues and competencies that are central to commissioned officer’s responsibilities. Framework established to understand officership, leadership, military customs, briefings, and life skills such as physical fitness, nutrition, and time management. P/NP or letter grading.

12. Basic Military Leadership, (2) Lecture, one hour. Requisite: course 11. Introduction to fundamentals of leadership, Army leadership values, ethics, and counseling techniques. Foundation of basic leadership fundamentals central to commissioned officer’s responsibilities established. P/NP or letter grading.


19. Fiat Lux Freshmen Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.
Upper-Division Courses

110. U.S. Military History. (3) Lecture, three hours; discussion, one hour. Survey of American military history from 1600 to the present. Causes of war, strategy, tactics, and technological developments set against economic, political, and diplomatic concerns. Impact of warfare on society.

131. Tactical Planning and Analysis. (4) Lecture, three hours; laboratory, four hours. Introduction to leadership development process used to evaluate military leadership performance. Examination of how to conduct individual and small unit training as well as introduction to basic principles of tactics. Emphasis on study of reasoning skills, troop leading procedures, and military orders process. P/NP or letter grading.

132. Army Officership and Communication. (4) Lecture, three hours; laboratory, four hours. Examination of officership that culminates in detailed case study. Interpersonal communication, with focus on general communication theory as well as written and spoken communication skills. Presentation of information briefing to receive feedback from both instructor and fellow students. P/NP or letter grading.

133. Leadership and Problem Solving. (4) Lecture, three hours; laboratory, four hours. Examination of role communications, values, and ethics play in effective leadership, including ethical decision making, consideration of others, transactional and transformational leadership, and survey of Army leadership doctrine. Emphasis on improving oral and written communication abilities and leadership development and assessment. P/NP or letter grading.

141. Leadership and Management. (4) Lecture, three hours; laboratory, four hours. Interactive course to develop student proficiency in planning and executing complex training operations. Counseling techniques and development of skills needed to lead various organizations. Exploration of training management, leadership skills, and developmental counseling techniques. P/NP or letter grading.

142. Leadership, Ethics, and Military Law. (4) Lecture, three hours; laboratory, four hours. Interactive course to enhance student understanding of organizational culture, leadership, and ethics. Understanding and enhancement of leader-member relations, assessment of organizational culture and ethical climate, and how to effect change in organizations. Exploration of foundations of military law and law of war. P/NP or letter grading.

143. Officership: Professional Military Leadership. (4) Lecture, three hours; laboratory, four hours. Capstone interactive leadership course to prepare students for challenges of being commissioned officers in U.S. Army by discussing various leadership challenges and case studies. Study of military units, with specific emphasis on joint operations involving Army, Navy, Air Force, and Marine Corps assets, military operations other than war, and global war on terror. Other topics include personnel administration, maintenance management, and financial planning. P/NP or letter grading.

188SA. Individual Studies for USIE Facilitators. (1) Tutorial, to be arranged. Enforced co-requisite: Honors College 101E. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor to discuss selected USIE seminar topic, conduct preparatory research, and begin preparation of syllabus. Individual contract with faculty mentor required. May not be repeated. Letter grading.

188SB. Individual Studies for USIE Facilitators. (1) Tutorial, to be arranged. Enforced co-requisite: course 188SA. Enforced co-requisite: Honors College 101E. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor to finalize course syllabus. Individual contract with faculty mentor required. May not be repeated. Letter grading.

188SC. Individual Studies for USIE Facilitators. (2) Tutorial, to be arranged. Enforced co-requisite: course 188SB. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor while facilitating USIE 88S course. Individual contract with faculty mentor required. May not be repeated. Letter grading.

197. Individual Studies in Military Science. (2 to 4) Tutorial, four hours. Limited to juniors/seniors. Individual intensive study, with scheduled meetings to be arranged between faculty member and student. Assigned reading and tangible evidence of mastery of subject matter required. May be repeated for credit. Individual contract required. P/NP or letter grading.
work with accomplished faculty members toward making novel discoveries in basic and clinical research.

Departmental research interests span a broad range of studies by integrating biological, physical, engineering, and medical sciences to explore mechanisms of disease in biological systems from in silico through a single cell to the whole organism level, while encompassing patient studies. Faculty members strive to understand basic biological systems and disease states and, where appropriate, to use these observations to develop new molecular diagnostic technologies and new molecular therapeutics.

With the department as home to the Crump Institute for Molecular Imaging and the Ahmanson Translational Imaging Division—with its nuclear medicine and positron emission tomography (PET) imaging research and clinical service—students have access to state-of-the-art science and technology, and the opportunity to make a direct impact on patient care. In addition, the department is home to the Business of Science Center. This program supplies education, experience, and industry mentorship to graduate students in the department and in other academic programs to prepare them for professional careers.

Graduate Study

Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Division website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Graduate Degrees

The Department of Molecular and Medical Pharmacology offers Master of Science (MS) and Doctor of Philosophy (PhD) degrees in Molecular and Medical Pharmacology, but does not admit applicants who seek only an MS degree.

The department also offers two MD/PhD programs concurrently with the Geffen School of Medicine. One is the Medical Scientist Training Program (MSTP) in which candidates are medical students that have been accepted into MSTP by the School of Medicine in order to qualify. The second is the Specialized Training and Advanced Research (STAR) program in which candidates are post-MD housestaff (interns, residents, or fellows) who have been accepted into the STAR Program by its selection committee in order to qualify.

The department, together with the Division of Laboratory Animal Medicine, offers PhD or postdoctoral training combined with residency training for veterinarians (with DVM or DVM/PhD degrees) in the Veterinary Investigator in Scientific Training and Advancement (VISTA) program.

Note: There is no degree program in pharmacy at UCLA.

Molecular and Medical Pharmacology

Lower-Division Courses

19. Fiat Lux Freshman Seminars, (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

99. Student Research Program, (1 to 2) Tutorial (supervised research or other scholarly work), three hours per week per unit. Entry-level research for lower-division students under guidance of faculty mentor. Students must be in good academic standing and enrolled in minimum of 12 units (excluding this course). Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP grading.

Upper-Division Courses

194. Group Seminars and Discussions: Cross-Disciplinary Scholars in Science and Technology Project, (4) Seminar, two hours; discussion, two hours. Limited to Cross-Disciplinary Scholars in Science and Technology (CSSST) students. Communication and collaboration skills, specifically in interdisciplinary settings and introduction to research project design and proposal process. Students submit written CSSST project proposal and give oral presentations of scientific proposals. May be repeated for credit. Letter grading.

199. Directed Research in Molecular and Medical Pharmacology, (2 to 6) Tutorial, three hours per week per unit. Limited to juniors/seniors. Supervised individual research under guidance of faculty mentor. Special studies in pharmacology, including either reading assignments or laboratory work or both, designed for proper training of students. Culminating paper or project required. May be repeated for credit. Letter grading.

Graduate Courses

200. Introduction to Laboratory Research, (8) Laboratory, eight to 20 hours. Individual projects in laboratory research for beginning graduate students. At end of each term students submit to their supervisor reports covering research performed. Pharmacology graduate students must take this course three times during their first two years in residence. Letter grading.

M205A. Introduction to Chemistry of Biology, (4) (Same as Chemistry C205A) Lecture, three hours; discussion, one hour. Introduction to chemical biology. Topics include computational chemical biology, utility of syntheses in biochemical research, peptidomics, designed reagents for cellular imaging, natural product biosynthesis, protein engineering and directed evolution, cell biology of metal ions, imaging metal ions in cells, metal-containing drugs. Letter grading.

M205B. Issues on Chemistry/Biochemistry, (4) (Same as Chemistry C205B) Seminar, one hour. Required course M205A. Selected talks and papers presented by training faculty on solving problems and utilizing tools in chemistry and molecular biology on chemistry/biology interface (CBI). S/U grading.

237. Research Frontiers in Cellular and Molecular Pharmacology, (4) Lecture, six hours; laboratory, five hours total. Detailed examination of principles of pharmacology and mechanisms of drug action at organismal, tissue, cellular, and molecular levels, with emphasis on receptors, receptor-effector coupling, neurotransmitters, cardiovascular pharmacology, autonomic and central nervous system pharmacology. Letter grading.

M248. Introduction to Biological Imaging, (4) (Same as Bioengineering M248 and Physics in Biology in Medicine M248) Lecture, three hours; laboratory, one hour; outside study, seven hours. Exploration of role of biological imaging in modern biology and medicine, including imaging physics, instrumentation, image processing, and applications of imaging for range of modalities. Practical experience provided through series of imaging laboratories. Letter grading.

251. Seminar: Pharmacology, (2) Seminar, two hours. Required of all first- and second-year students. Presentation and discussion of graduate student research progress. Letter grading.

M257. Introduction to Toxicology, (4) (Same as Pathology M257) Requisite: course M241. Biochemical and systemic toxicology, basic mechanisms of toxicology, and interaction of toxic agents with specific organ systems. S/U or letter grading.

M258. Pathologic Changes in Toxicology, (4) (Same as Pathology M258) Designed to give students experience in learning normal histology of tissues which are major targets of toxin and the range of pathologic changes that occur in these tissues (liver, bladder, lung, kidney, nervous system, and vascular system). S/U or letter grading.

267. Business of Science: Exploring Entrepreneurship Seminar, (1) Seminar, one hour. Limited to graduate students. Further exploration of topics discussed in course 257, allowing students to interact with speakers and bring their individual concerns to table. Past and present students encouraged to enroll. S/U grading.

287. Business of Science, (2) Lecture, two hours. Designed for graduate students. Undergraduate students may enroll with consent of instructor. Introduction to principles of business in entrepreneurship in technology sectors. Basic business skills taught to effectually perform in commercial environment and within academic environment. Application of course material by performing feasibility studies that have potential to receive funding and become actual companies. Exploration of entrepreneurship, particularly formation and operation of new business ventures. Presentations by and questioning of successful technology entrepreneurs, identifying and evaluating new venture opportunities, development of financing, and entry and exit strategies. S/U or letter grading.

288. Gene Therapy, (4) Lecture, three hours; discussion, one hour. Introduction to basic concepts of gene therapy, wherein treatment of human disease is based on transfer of genetic material into an individual. Discussion of molecular basis of disease, gene delivery vectors, and animal models. Letter grading.

291. Special Topics in Pharmacology, (4) Lecture, four hours. Examination in depth of topics of current importance in pharmacology. Emphasis on recent contributions of special interest to advanced PhD candidates and faculty. Letter grading.

292. Research Projects, Proposals, and Presentations, (6) Lecture, four hours; discussion, four hours. Limited to departmental majors. Introduction to format and requirements of research proposals, so students can critically read primary papers and give formal scientific presentations, ask new questions, formulate new hypotheses, and construct research projects, understand balance of importance, novelty, and feasibility, and develop ability to think independently, creatively, and comprehensively. Letter grading.


MOLECULAR BIOLOGY
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Program e-mail
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Faculty Committee
Peter J. Bradley, PhD (Microbiology, Immunology, and Molecular Genetics)
Michael F. Carey, PhD (Biological Chemistry)
Hilary A. Coller, PhD (Molecular, Cell, and Developmental Biology)
Feng Guo, PhD (Biological Chemistry)
Jeffrey A. Long, PhD (Molecular, Cell, and Developmental Biology)
Scope and Objectives
The PhD in Molecular Biology is offered under the supervision of an interdepartmental committee. The Molecular Biology Institute serves this committee and the various departments concerned in support of faculty research and teaching associated with the PhD program. Staff members are from participating departments and from the Molecular Biology Institute. Areas for study include cell biology, developmental biology and neurobiology, nuclear acid biochemistry, gene regulation, immunobiology, microbiology/virology and pathogenesis, molecular evolution and paleobiology, oncogenes and signal transduction, plant molecular biology, protein and enzyme structure and function, genomics, bioinformatics, and structural biology.

Graduate Study
Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Division website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Graduate Degrees
The Molecular Biology Program offers the Master of Science (M.S.) and Doctor of Philosophy (Ph.D.) degrees in Molecular Biology.

Molecular Biology
Lower-Division Courses
19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members or in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.
99. Student Research Program. (1 to 2) Tutorial (supervised research or other scholarly work), three hours per week per unit. Entry-level research for lower-division students under guidance of faculty mentor. Students must be in good academic standing and enrolled in minimum of 12 units (excluding this course). Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP grading.

Graduate Courses
252. Writing for Science (1) Seminar, one hour. Corequisite: Biological Chemistry 251A or 251B or 251C. Limited to first-year Molecular Biology PhD students. Development of specific skills in scientific writing within context of one advanced course on mechanics of gene transcription. Letter grading.
254A. Concepts in Molecular Biosciences. (3) Lecture, three hours; discussion, two hours. Limited to human genetics and molecular biology graduate students. Five-week course covering four basic experimental approaches of biochemistry and molecular biology in context of various specific topics, including (1) structural biology, with protein and nucleic acid structure and molecular recognition, (2) use of cell-free and purified in vitro systems to dissect reaction mechanisms, (3) biochemical approaches to dissecting complex reactions/pathways in cells, and (4) enzymology and protein chemistry. Letter grading.
254B. Concepts in Molecular Biosciences. (3) Five-week course. Lecture, three hours; discussion, two hours. Enforced requisite: course 254A, Important biological problems that have been genetically analyzed in different organisms or small number of related problems. Major genetic approaches used in relevant organisms, including both forward and reverse genetic approaches, genetic interactions between genes (genetic enhancers and suppressors), transgenic technology, and systematic genomic strategies. Letter grading.
254C. Concepts in Molecular Biosciences. (3) Five-week course. Lecture, three hours; discussion, two hours. Enforced requisite: courses 254A, 254B. Molecular mechanisms underlying complex problems in cell biology. Experimental approaches used to define mechanisms involved in protein targeting, cell structure and subcellular organization, cell communication, and intracellular signaling. Analysis of pathways that connect these cellular processes. Letter grading.
254D. Concepts in Molecular Biosciences. (3) Five-week course. Lecture, three hours; discussion, two hours. Enforced requisite; courses 254A, 254B, 254C. Application of biochemical, molecular biological, genetic, and cell biological approaches to understand specialized topics in life and biomedical sciences, including developmental disease, stem cell biology, synaptic transmission in nervous system, cancer, and heart disease. Letter grading.
255. Scientific Writing. (3) Lecture, two hours; discussion, one hour. Limited to first-year Molecular Biology PhD students. Improvement of academic literacy through development of specific skills in scientific writing. Review of principles of effective writing using practical examples and exercises. Topics include principles of good writing, tricks for writing faster and with less anxiety, format of scientific manuscripts, art of editing, and issues in publication and peer review. Letter grading.
298. Current Topics in Molecular Biology. (2) Student presentation/seminar, two hours. Students present oral critiques and participate in discussions on assigned topics. S/U grading.
300. Entering Mentoring Training Program. (1) Seminar/discussion, 90 minutes. Limited to 25 graduate students. Offers formal training on effective mentoring of undergraduate students in science laboratories. Priority given to those who either have prior experience as mentor or are currently mentoring undergraduates; however, all are encouraged. Exploration of mentoring strategies through lecture, collaborative learning, and case studies. Topics include maintaining effective communication, aligning expectations, addressing equity and inclusion, fostering independence, cultivating ethical behavior, and articulating mentoring philosophy. S/U grading.

596. Directed Individual Studies. (2 to 12) Tutorial, to be arranged. Directed individual research or study. May be repeated for maximum of 12 units. S/U grading.
599. PhD Dissertation Research and Writing. (2 to 12) Tutorial, to be arranged. Directed individual studies for students who have advanced to candidacy. May be repeated for maximum of 12 units. S/U grading.

Molecular, Cell, and Developmental Biology
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Robert B. Goldberg, PhD
Volker Hartenstein, PhD
Ann M. Hirsch, PhD
Steven E. Jacobsen, PhD
Tracy L. Johnson, PhD (Marla Rowena Ross Term Professor of Cell Biology and Biochemistry)
D. Leanne Jones, PhD
Frank A. Laski, PhD
Chentao Lin, PhD
Jeffrey A. Long, PhD
William E. Lowry, PhD
Karen M. Lyons, PhD
Hanna K.A. Mikkola, MD, PhD
Matteo Pellegrini, PhD
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Professors Emeriti
William R. Clark, PhD
John H. Fessler, PhD
Harumi Kasamatsu, PhD
James A. Lake, PhD
Shuo Lin, PhD
John R. Merriam, PhD
Paul H. O’Laigue, PhD
Winston A. Salser, PhD
Eilane M. Tobin, PhD
Associate Professor
Atsushi Nakano, MD, PhD
Assistant Professors
Slobhan A. Braybrook, PhD
Andrew S. Goldstein, PhD, in Residence
Lachezar (Luke) A. Nikolov, PhD
Jesse R. Zamudio, PhD
Lecturers
Katie J. Gallagher, PhD
Mitra J. Hooshmand, PhD
Pei-Yun Lee, PhD
Undergraduate Study

Molecular, Cell, and Developmental Biology BS

The Bachelor of Science degree in Molecular, Cell, and Developmental Biology (MCD) is designed especially for students who intend to go on to postgraduate work in biology or medicine and for students aiming for entry-level positions in biotechnology-related fields. Students are exposed to basic biological and molecular concepts underlying recent technical advances in molecular, cell, and developmental biology of animals and plants. Areas of emphasis include cell biology, immunology, molecular biology, plant biology, developmental biology, and neurobiology, among others.

Learning Outcomes

The Molecular, Cell, and Developmental Biology major has the following learning outcomes:

- Broad knowledge of the fundamental tenets of molecular, cell, and developmental processes
- Through use of the scientific method, demonstrated ability to test questions and solve problems using quantitative and inquiry-related skills
- Demonstrated ability to ask questions about primary scientific literature within the discipline
- Demonstrated analytical skills to evaluate primary scientific literature within the discipline
- Effective written and oral communication of laboratory findings
- Demonstrated appropriate awareness of issues associated with responsible conduct of research

Preparation for the Major

Life Sciences Core Curriculum

Required: Chemistry and Biochemistry 1A4, 14B, 14C, and 14D, or 20A, 20B, 20L, 30A, 30AL, and 30B; Life Sciences 30A, 30B, and 40 or Statistics 13, or Mathematics 3A, 3B, and 3C, or 31A, 31B, and 32A; Physics 1A, 1B, 1C, 4AL, and 4BL, or 5A, 5B, and 5C.

Students must also complete one of two life sciences sequences—either Life Sciences 1, 2, 3, 4, and 23L, or 7A, 7B, 7C, and 23L. They may not substitute courses in either sequence.

Each core curriculum course must be passed with a grade of C– or better, and all courses must be completed with an overall grade-point average of 2.0 or better. Students receiving grades below C– in two core curriculum courses, either in separate courses or repetitions of the same course, are subject to dismissal from the major.

Transfer Students

Transfer applicants to the Molecular, Cell, and Developmental Biology major with 90 or more units must complete the following introductory courses prior to admission to UCLA: one year of general biology with laboratory for majors, preferably equivalent to Life Sciences 1 and 2, or 7A, 7B, and 7C, one year of calculus, one year of general chemistry with laboratory for majors, and one semester of organic chemistry with laboratory. A second semester of organic chemistry or one year of calculus-based physics is strongly recommended but not required for admission.

Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection materials.

Electives:

A total of 20 upper-division elective units must be completed. At least 10 units must be taken from molecular, cell, and developmental biology (except 100, 104AL, 138, 144, 150AL, 165A, 187AL, 192A, 192B, 193, 194A, 194B, or 199), Chemistry and Biochemistry C100, C13C, C13L, C139, C136A, Computer Science CM124, CM186, Microbiology, Immunology, and Molecular Genetics 100L, 101, 102, 105, 158, 168, 174, C185A, Physiological Science 121, 125, or 174, of which at least 5 units must be molecular, cell, and developmental biology courses. The remaining 10 units may be taken from the above courses or from Biostatistics 100A or Statistics 100A, Ecology and Evolutionary Biology 110, 121, 162, Human Genetics C144, or Physiological Science 166.

Honors Program

Admission

The honors program provides exceptional Molecular, Cell, and Developmental Biology majors with the opportunity to do research culminating in an honors thesis. Junior and senior majors who have completed all university-level coursework, including all preparation courses and requirements for the major with an overall grade-point average of 3.0 or better and a 3.5 GPA or better in the required major courses, may apply for admission to the honors program. Students must have the sponsorship of an approved faculty advisor.

For more information and application forms, students should contact the Student Affairs Office, 128 Hershey Hall, early in their educational planning. Completed applications should be submitted at least two weeks prior to the term in which students plan to begin the honors program.

Requirements

The core of the program consists of at least one approved undergraduate seminar course from Molecular, Cell, and Developmental Biology and three research courses (12 units minimum) from 198A, 198B, and 198C, culminating in a thesis. To qualify for graduation with honors, students must satisfactorily complete all requirements for the honors program and the major and obtain at least an overall 3.0 grade-point average and a 3.5 GPA or better in coursework required for the major. On recommendation by the faculty sponsor and with approval of the thesis by the departmental honors committee, students are awarded no honors, departmental honors, or highest departmental honors.

At the discretion of the departmental honors committee, students who have (1) a GPA of 3.6 or better, both overall and in the major and (2) demonstrated exceptional accomplishment on the research thesis are awarded highest departmental honors.

Computing Specialization

Majors in Molecular, Cell, and Developmental Biology may select a specialization in Computing by (1)
satisfying all the requirements for a bachelor’s degree in the major, (2) completing Program in Computing 10B, 110C, 15A, and Life Sciences 125. A grade of C– or better is required in each course, with a combined grade-point average in the specialization of at least 2.0. Students must petition for admission to the program and are advised to do so after completing Program in Computing 10B (petitions should be filed in the Student Affairs Office). Students graduate with a bachelor’s degree in their major and a specialization in Computing.

Graduate Study

Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Division website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Graduate Degrees

The Department of Molecular, Cell, and Developmental Biology offers Master of Arts (MA), Candidate in Philosophy (PhD), and Doctor of Philosophy (PhD) degrees in Molecular, Cell, and Developmental Biology. Applicants interested in studying with faculty in the department are encouraged to apply to an appropriate home area in Graduate Programs in Bioscience.

Molecular, Cell, and Developmental Biology

Lower-Division Courses

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty in the department. May not be repeated for credit (PhD) degrees in Molecular, Cell, and Developmental Biology. Limited to students in College Honors Program. Departmental data. Letter grading.

70. Genetic Engineering and Society. (5) Lecture, four hours; discussion, one hour. Designed for nonmajors. Not open to students with credit for Honors College 70A or Life Sciences 3 or 4. Basic principles of genetic engineering. Overview of genetic engineering concepts and specific applications of genetic engineering to medicine, agriculture, law, and society. Emphasis on genetic engineering history and foundations to generate discussion on its use in society. P/NP or letter grading.

60. Biomedical Ethics. (5) Lecture, three hours; discussion, one hour. Requisites: Life Sciences 3, 4, and 23L, or 7A, 7B, 7C, 23L, and 107. Development of understanding of fundamental molecular mechanisms and cellular activities guiding function of complex organism from single fertilized egg. Development of model organisms to understand preserved nature of developmental decisions across animal kingdom, distinct features that lead to diversification and form, and development of origin and roles of stem and progenitor cells in development and maintenance of specific organ systems. Roles of cell shape change, cell death, proliferation, and migration in generating shape of embryo, organs, and tissues. Mechanisms by which cells become different from and communicate with one another to coordinate their activities in time and space in embryo. Special emphasis on experimental approaches used to access these fundamental questions that determine how organized tissues and organs are formed and maintained throughout life of organism. Letter grading.

138. Developmental Biology. (5) Lecture, three hours; discussion, one hour. Requisites: Life Sciences 3, 4, and 23L, or 7A, 7B, 7C, 23L, and 107. Development of understanding of fundamental molecular mechanisms and cellular activities guiding function of complex organism from single fertilized egg. Development of model organisms to understand preserved nature of developmental decisions across animal kingdom, distinct features that lead to diversification and form, and development of origin and roles of stem and progenitor cells in development and maintenance of specific organ systems. Roles of cell shape change, cell death, proliferation, and migration in generating shape of embryo, organs, and tissues. Mechanisms by which cells become different from and communicate with one another to coordinate their activities in time and space in embryo. Special emphasis on experimental approaches used to access these fundamental questions that determine how organized tissues and organs are formed and maintained throughout life of organism. Letter grading.

M140. Cancer Cell Biology. (5) (Same as Biological Chemistry M140.) Lecture, three hours; discussion, one hour. Requisite: course 165A. Cancer causes and genetics. Effects of cell transformation on cell growth and metabolism. Altered cell cycle, metabolism, and differentiation pathways in cancer cells. Tumor microenvironment contributions to cancer malignancy, including angiogenesis, metastasis, and immune system evasion. Letter grading.

C141. Molecular Basis of Plant Differentiation and Development. (6) Lecture, three hours; discussion, one hour. Requisites: Life Sciences 3, 4, and 23L, or 7A, 7B, 7C, 23L, and 107. In-depth study of basic processes of growth differentiation and development in plants, molecular mechanisms of gene expression in plants, and applications of these processes. Discussion of diversity of plant systems, with focus on developing critical understanding of current experimental basis of research in this field. Concurrently scheduled with course C239. Letter grading.

143. Developmental Biology: Genetic Control of Organogenesis. (5) Lecture, three hours; discussion, one hour. Requisites: course 138, Life Sciences 3, 4, and 23L, or 7A, 7B, 7C, 23L, and 107. Cell and molecular basis of animal embryology, with primary emphasis on vertebrate organ development, but including pertinent material from Drosophila and other invertebrate model organisms.

144. Molecular Biology of Cellular Processes. (5) Lecture, three hours; discussion, one hour. Requisites: Life Sciences 3, 4, and 23L, or 7A, 7B, 7C, 23L, and 107. Not open for credit to students with credit for Chemistry 153B. Development of understanding of fundamentals of modern molecular biology both from perspective of known molecular mechanisms for regulating fundamental processes in cells and from theoretical applied perspective for using molecular biology as laboratory tool. Special emphasis on molecular mechanisms that relate to chromatin and histone modifications, DNA replication and repair, transcription, microRNAs, meliosis, and splicing. Application of molecular biology as tool to understand embryonic development, reprogramming, cancer, and stem cells. Development of sophisticated understanding of DNA, RNA, and protein as well as capability of designing experiments to address fundamental questions in biology and interpreting experimental data. Letter grading.

145. Appreciation and Critical Review of Biomedical Research. (4) Seminar; four hours. Corequisite: one course from 198B, 198C, 199B, 199C. Designed to offer students perspectives on how to appreciate independent research they are conducting in faculty mentor’s laboratory, and allow them to gain wider understanding of fundamental processes of modern molecular biology.


M175A. Cellular and Systems Neuroscience. (5) Lecture, four hours; discussion, 90 minutes. Requisites: Chemistry 14C or 30A (14C may be taken concur-rently), Life Sciences 2 or 7C, Physics 1B or 1BC or 5C or 6B. Not open for credit to students with credit for Psychological Science 111A. For Neuroscience and Psychological Science majors, grade of C– or better is required to proceed to Neuroscience M101B or Physi-ological Science 111B. Cellular neurophysiology, membrane potential, action potentials, and synaptic transmission. Sensory systems and how assemblies of neurons process complex information and control movement. P/NP or letter grading.

M175B. Molecular and Developmental Neuroscience. (5) Lecture, four hours; discussion, 90 minutes. Requi-sites: courses M175A (or Neuroscience M101A or Psychological Science M180A or Psychology M117A; Neuroscience majors must have grade of C– or better) or Psychological Science M111A or Psychology 115. Life Sciences 4 and 4 (in corequisite), or Life Sciences 7A, 7B, 7C, and 7C. Molecular biology of channels and receptors; focus on voltage dependent channels and neurotransmitter receptors. Molecular biology of supramolecular mechanisms: synaptic transport, calcium, voltage, cytokines, and muscle. Classical experiments and modern molecular approaches in developmental neurobiology. P/NP or letter grading.

M175C. Behavioral and Cognitive Neuroscience. (5) Lecture, four hours; discussion, 90 minutes. Requisite: course M175A (or Neuroscience M101A or Physiological Science M180A or Psychology M117A; Neuroscience majors must have grade of C– or better) or Psychological Science M111A or Psychology 115. Life Sciences 1 or 7C. Neural mechanisms underlying motivation, learning, and cog-ition. P/NP or letter grading.

180A. Scientific Analysis and Communication I. (2) Seminar, two hours. Enforced requisites: courses 165A, 196A. Students read and discuss scientific articles and give presentations, introducing research topics using relevant primary literature. Critical aspects of research process, including record keeping, ethics, lab-oratory safety and citizenry, mechanics of scientific writing, diverse approaches to research, and project responsibilities and ownership. Acquisition of in-depth and broad knowledge about student research proj-ects, improvement of oral and written communication skills, and full appreciation of process of doing good science and becoming skilled researchers. Letter grading.

180B. Scientific Analysis and Communication II. (2) Seminar, two hours. Enforced requisites: courses 180A, 196A. Enforced corequisite: course 196B. Stu-dents give presentations similar to laboratory meeting or research symposium talk in which speakers discuss project goals, methodological approaches, results, and conclusions. How to write research papers as well as prepare and present scientific posters. Production of delivery that demonstrates achievement and creation of sense of pride for work accom-plished as skilled researchers. Letter grading.

187AL. Research Immersion Laboratory in Genom-ics. (5) Lecture, four hours; laboratory, six hours. Requisites: Life Sciences 4 or 107, 23L. Course 187AL is required to be taken in conjunction with 187BL. Limited to Molecular, Cell, and Developmental Biology majors. Introduction to cutting-edge genomic and bioinfor-matics methods and resources for genome annota-tion. Students propose original research projects rela-ted to gene annotation and drive their projects using
bioinformatics tools. Students are provided fragments of genome from relatively poorly studied organism that has been sequenced at UCLA. May not be repeated for credit. Letter grading.

186B. Special Courses in Molecular, Cell, and Developmental Biology. (2) Seminar, two hours. Departmentally sponsored experimental or temporary courses, such as those taught by visiting faculty members. May be repeated for credit with topic change. Letter grading.

188SA. Individual Studies for USIE Facilitators. (1) Tutorial, to be arranged. Enforced corequisite: Honors College 101E. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor to discuss selected USIE seminar topic, conduct preparatory research, and begin preparation of syllabus. Individual contract with faculty mentor required. May not be repeated. Letter grading.

188SB. Individual Studies for USIE Facilitators. (1) Tutorial, to be arranged. Enforced corequisite: course 188SA. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor to discuss selected USIE seminar syllabus. Individual contract with faculty mentor required. May not be repeated. Letter grading.

188CC. Individual Studies for USIE Facilitators. (2) Tutorial, to be arranged. Enforced prerequisite: course 188SB. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor while facilitating USIE 88S course. Individual contract with faculty mentor required. May not be repeated. Letter grading.

189. Advanced Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to undergraduate lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

189HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to upper-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

191. Variable Topics Research Seminars: Molecular, Cell, and Developmental Biology. (2) Seminar, two hours. Designed for junior/senior departmental majors. Intended for students with strong commitment to pursue graduate studies in molecular, cell, and developmental biology. Must be taken for at least three terms and for total of at least 8 units. Individual contract required. In Progress grading (credit to be given only on completion of course 199B). Report on progress must be presented to undergraduate adviser each term 199 course is taken. Individual contract required. Letter grading.

192A. Undergraduate Practicum in Molecular, Cell, and Developmental Biology. (4) Seminar, three hours. Limited to junior/senior Molecular, Cell, and Developmental Biology majors. Training and supervised practicum for advanced undergraduate students. Students assist in preparation of materials and development of innovative programs under guidance of faculty members in small course settings. Consult Undergraduate Office for further information. May not be applied toward course requirements for Molecular, Cell, and Developmental Biology major. May be repeated once for credit. P/NP or letter grading.

193. Journal Club Seminars: Molecular, Cell, and Developmental Biology. (1) Seminar, two hours. Corequisites: course 198A or 198B or 198C or 199 or 199A or 199B or 199C. Limited to juniors/seniors. Development of in-depth understanding of and ability to discuss current literature in field of students' own research. May be repeated for credit. P/NP grading.

194A. Research Group Seminars: Molecular, Cell, and Developmental Biology. (1) Seminar, two hours. Corequisites: course 198A or 198B or 198C or 199 or 199A or 199B or 199C. Limited to juniors/seniors. Involvement in laboratory's weekly research group meeting to encourage student participation in research and hypothesis-driven research experience in laboratory research areas. Discussion of use of specific research methods and current literature in field of or of research of faculty members or students. May be repeated for credit. P/NP or letter grading.

194B. Research Group Seminars: Current Topics in Biomedical Sciences. (2) Seminar, two hours. Limited to juniors/seniors in research traineeships or those who have strong commitment to pursue graduate studies in molecular, cell, and developmental biology. Must be taken for at least three terms and for total of at least 12 units. Report on progress must be presented to undergraduate adviser each term 198 course is taken. Individual contract required. Letter grading.

196A. Research Apprenticeship I in Molecular, Cell, and Developmental Biology. (2) Tutorial, 12 hours. Preparation: minimum 3.0 grade-point average in major. Requisites: Life Sciences 3 and 4, or 7A, 7B, 7C, 23L, and 107. 3.0 major prerequisite average and at least one term of prior experience in same laboratory in which student is to be coregistered. Corequisite: course 198A. Course 196A is requisite to 199B. Designed for undergraduate students who are interested in pursuing inquiry-based and hypothesis-driven research experience in laboratory of departmental or preapproved faculty mentor. Guided research course to be taken in conjunction with course 198A, followed by continuation research course 198B. Techniques depend on specific laboratory; however, all students learn how to apply scientific method: propose hypothesis, identify experiments to address hypothesis, perform experiments, and analyze results. How to record information from experimental activities into laboratory notebooks and to write research proposals. Letter grading.

196B. Research Apprenticeship II in Molecular, Cell, and Developmental Biology. (4) Tutorial, 12 hours. Enforced corequisites: courses 198A, 196A. Enforced corequisite: course 180B. Technical aspects vary depending on specific laboratory; however, all students use scientific method to propose hypothesis, identify experiments to address hypothesis, perform experiments, and analyze results. How to record information from experimental activities into laboratory notebooks and to write research proposals. Letter grading.

196C. Honors Research in Molecular, Cell, and Developmental Biology. (4) Tutorial, 12 hours. Requisites: Life Sciences 3 and 4, or 7A, 7B, 7C, 23L, and 107. Course 198A is requisite to 199B, which is requisite to 199C, which is requisite to 199D. Limited to juniors/seniors. Department majors may enroll with sponsorship from department faculty members or preapproved outside faculty members. Other junior/senior life sciences majors may enroll only with department faculty sponsors. Supervised individual research under guidance of faculty mentor. May be repeated for credit. Individual contract required. Letter grading.

196D. Honors Research in Molecular, Cell, and Developmental Biology. (4) Tutorial, 12 hours. Requisites: Life Sciences 3 and 4, or 7A, 7B, 7C, 23L, and 107. Limited to junior/senior Molecular, Cell, and Developmental Biology majors. Development and completion of comprehensive research project and honors thesis under direct supervision of approved faculty member to broaden and deepen students' knowledge of some phase of molecular, cell, and developmental biology. Must be taken for at least three terms and for total of at least 12 units. Report on progress must be presented to undergraduate adviser each term 198 course is taken. Individual contract required. Letter grading.

198C. Honors Research in Molecular, Cell, and Developmental Biology. (4) Tutorial, 12 hours. Requisites: course 198B, Life Sciences 3 and 4, or 7A, 7B, 7C, 23L, and 107. Limited to junior/senior Molecular, Cell, and Developmental Biology majors. Development and completion of comprehensive research project and honors thesis under direct supervision of approved faculty member to broaden and deepen students' knowledge of some phase of molecular, cell, and developmental biology. Must be taken for at least two terms and for total of at least 8 units.
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Individual contract required. Letter grading. Students may elect to enroll in additional research courses through courses 199C and 199D. Letter grading. Requisite: department course 199A through 199D course is taken. Letter grading.

199D. Directed Research in Molecular, Cell, and Developmental Biology. (Tutorial, 12 hours. Preparatory: minimum 3.0 grade-point average in major. Requisites: course 199B, Life Sciences 3 and 4, or 7A, 7B, 7C, 23L, and 107. Limited to juniors/seniors. Department majors may enroll with sponsorship from department faculty members or preapproved outside faculty members. Other junior/senior life sciences majors may enroll only for research projects in laboratories with department faculty sponsors. Supervised individual research under guidance of faculty mentor. Culminating research project designed to broaden and deepen students’ knowledge of some phase of molecular, cellular, and developmental biology. Must be taken for at least two terms and for total of at least 8 units. Students may elect to enroll in additional research through courses 199C and 199D. Requisite: department course 199A through 199D course is taken. Individual contract required. Letter grading.

Graduate Courses

C222A. Advanced Topics in Cell and Molecular Biology: Molecular Biology of Cell Nuclei. (2) Lecture, two hours. Requisites: courses 100 or 165A, 144, Life Sciences 4 or 107. Recent developments in fields of molecular, cell, and developmental biology. Major emphasis on experimental approaches and current research in field. Introduction to several model systems along with presentation of specific topic. Basic information provided as to how this knowledge is obtained in laboratory using variety of experimental approaches and model organisms. Letter grading.


C224. Molecular Basis of Vascular Biology. (4) Lecture, four hours. Requisites: Life Sciences 4 and Developmental and pathological aspects of vascular biology. Presentation and discussion of key questions of vascular biology with mechanistic viewpoint. Major emphasis on experimental approaches and current research in field. Introduction to several model systems along with presentation of specific topic. Basic information provided as to how this knowledge is obtained in laboratory using variety of experimental approaches and model organisms. Letter grading.

C226. Prokaryotic and Eukaryotic Genome Systems. (2) Lecture, four hours. Discussion of experimental approaches concerning current research in study of DNA replication, organization, transcription, and translation. S/U or letter grading. Concurrently scheduled with course C226B. Structural Molecular Biology. (4) (Same as Chemistry M230B.) Lecture, three hours; discussion, one hour. Requisites: Mathematics 3C, Physics 6C. Selected topics from principles of biological structure: structure of molecules and cells. Ultrastructure of fibrillar proteins, nucleic acids, and polysaccharides; physical chemistry and Fourier transforms; principles of electron, neutron, and X-ray diffraction; optical and computer filtering; three-dimensional reconstruction. S/U or letter grading.

C230D. Structural Molecular Biology Laboratory. (2) (Same as Chemistry M230D.) Laboratory, 10 hours. Corequisite: course M230B. Methods in structural molecular biology, including experiments utilizing single crystal X-ray diffraction, low angle X-ray diffraction, electron diffraction, optical diffraction, optical filtering, three-dimensional reconstruction from electron micrographs, and molecular dynamics. S/U or letter grading.

C234. Genetic Control of Development. (4) (Same as Biological Chemistry M234.) Lecture, four hours. Topics at forefront of molecular developmental biology, including problems in oogenesis and early embryogenesis, pattern formation, axis determination, nervous system development, cellular morphogenesis, and cell-cell and cell-matrix interactions. S/U or letter grading.

C239. Molecular Basis of Plant Differentiation and Development. (5) Lecture, three hours; discussion, one hour. Requisites: Life Sciences 1, 3, 4, and 23L, or 7A, 7B, 7C, 23L, and 107. In-depth study of basic processes of growth, development, and disease in plants and plant molecular mechanisms underlying these processes. Discussion of variety of plant systems, with focus on development understanding of current experimental basis of research in this field. Concurrently scheduled with course C141. Preparation and presentation of term paper, in addition to current coursework, required of graduate students. Letter grading.

C242. Topics in Neurobiology. (4) Lecture, three hours. Requisite: course 171. Selected current problems in neurobiology discussed in depth, with emphasis on analysis of original papers. May be repeated for credit. Letter grading.

C250. Plant Communication. (4) Lecture, three hours; discussion, one hour. Requisites: Life Sciences 3, 4, and 23L, or 7A, 7B, 7C, 23L, and 107. Most people think of plants as static organisms, yet they live in a world of symbiosis and community. Plants change atmosphere, enrich soil, and communicate with insects, bacteria, and other—Earth’s ultimate symbiote. Just as science has revealed over time misconceptions about how things work at deeper level, scientists and economists now recognize that beyond obvious need to grow above-ground biomass for fuel and food, we must better understand how to make that biomass in sustainable manner. Introductory course in chemical ecology and how natural compounds affect gene expression. Emphasis on role of natural compounds in plant/animal, and plant/herbivore Interactions; synthesis of principles of plant defense mechanisms and responses to microbial infections. Concurrently scheduled with course C150. S/U or letter grading.

C254. Seminar: Plant Morphogenesis. (2) Seminar, two hours. S/U or letter grading.

C255. RNA Editing. (4) Lecture, two hours; discussion, one hour. Preparation: knowledge of molecular biology and molecular genetics. Discussion of diverse set of RNA modification phenomena known as RNA editing. Topics include U insertion/deletion type of editing in trypanosome mitochondria, C to U substitution editing in apo B mRNA and plant mitochondria, C insertion editing in Physarum mitochondria, etc. Discussion of mechanism, function, and evolution of these phenomena. S/U grading.

CM256. Human Genetics and Genomics. (5) (Same as Microbiology CM256.) Lecture, three hours; discussion, one hour. Requisites: Life Sciences 3, 4, and 23L, or 7A, 7B, and 7C. Provides an introduction to human populations, with emphasis on genomics, family studies, population bounding, Mendelian and common diseases, cancer genetics, animal models, cardiovascular disease, pharmacological genetics, and genetic counseling. Lectures and readings in literature, with focus on current questions in fields of medical and human genetics and molecular biology. Readings and discussion of such questions of current. Limited to 25. Scheduled with course CM156. Independent research project required of graduate students. Letter grading.

269A-269B-269C. Seminars: Development, Stem Cells, and Disease Mechanisms. (2–2–2) Seminar, two hours. Limited to graduate students. Advanced courses based on research papers on fundamental cellular mechanisms governing development and disease. Disease results from genetically determined or acquired deficits in cell and molecular processes; analysis of these processes in context of normal development indicates ways of dealing with corresponding disease. S/U grading.

M272. Stem Cell Biology and Regenerative Medicine. (4) (Same as Pathology M272.) Lecture, two hours; discussion, two hours. Designed for graduate students. Preparation of current knowledge of embryonic and adult stem cells and factors that regulate their growth and development. Major emphasis on how advances in cell and molecular biology and tissue engineering can be applied to use of stem cells in regenerative medicine. Bioethical and legal issues related to stem cell research. S/U or letter grading.

276. Seminar: Molecular Genetics. (2) Seminar, two hours. Topics vary each term. S/U or letter grading.


278. Seminar: Molecular Genetics of Development. (2) Seminar, two hours. Designed for graduate students. Topics vary from year to year, with focus on establishment of position and pattern during embryogenesis by interaction of signal transduction systems and transcription factors. S/U or letter grading.


283. Seminar: Topics in Cell Biology. (2) Seminar, two hours. Discussions of selected topics in biology of eukaryotic cells. Topics vary from year to year and include bioenergetics, motility, organelle DNA, membrane structure and function, oncogenic transformation, nuclear organization and function. S/U or letter grading.

284. Seminar: Structural Macromolecules. (2) Seminar, one hour; discussion, three hours. Preparation and discussion of current topics in extracellular active structural macromolecules—their synthesis, structure, and roles in cell and developmental biology. Letter grading.

286. Seminar: Plant Development. (2) Seminar, one hour; discussion, two hours. Preparation: one plant biology course and at least one advanced undergraduate or graduate plant development or biochemistry course. Seminar on specific topics in plant development. Content varies each term. S/U grading.

289. Current Topics in Plant Molecular Biology. (2) Discussion, one hour. Recent research developments in field of plant molecular biology. Opportunities for graduate students to discuss individual research work. S/U grading.


295. Seminar: Molecular, Cell, and Developmental Biology. (2) Seminar, two hours. In-depth surveys of recent developments in molecular, cell, and developmental biology research. Reading and presentation of
primary research articles to learn to critically evaluate research papers and to organize and present seminars on specific research topics. S/U or letter grading.

296. Advanced Topics in Molecular, Cellular, and Developmental Biology. (2) Discussion, three hours. Advanced study and analysis of current topics in cellular, molecular, and developmental biology. Discussion of current research and literature in research specialty of faculty member teaching course. S/U grading.

297. Advances in Molecular Analysis of Plant Development and Plant/Microbe Interactions. (2) Discussion, two hours. Recent advances in plant molecular biology, with emphasis on control of gene expression both during plant development and in plant/microbe interactions. S/U grading.

375. Teaching Apprentice Practicum. (1 to 4) Seminar, to be arranged. Preparation: apprentice personnel employment as teaching assistant, associate, or fellow. Teaching apprenticeship under active guidance and supervision of regular faculty member responsible for curriculum and instruction at UCLA. May be repeated for credit. S/U grading.

495. Preparation for Teaching Molecular, Cell, and Developmental Biology in Higher Education. (2) Seminar, two hours. Designed for graduate students. Study of problems and methodologies in teaching molecular, cell, and developmental biology, including workshops, seminars, apprentice teaching, and peer observation. S/U grading.


597. Preparation for MA Comprehensive Examination or PhD Qualifying Examinations. (2 to 12) Tutorial, to be arranged. May not be applied toward MA or PhD course requirements. S/U grading.

598. MA Thesis Research and Writing. (2 to 12) Tutorial, to be arranged. S/U grading.


Molecular, Cellular, and Integrative Physiology

Interdepartmental Program
College of Letters and Science and David Geffen School of Medicine

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Scope and Objectives

Physiology is the study of the functional processes that collectively constitute life. The studies usually employ quantitative analyses of normal life processes, of pathological defects in normal life processes, of model systems to clarify and test basic physiological principles, and of functional specializations of organisms that have evolved under the influence of differing selective forces. Thus, physiology contributes importantly to advances in knowledge both in the basic biological sciences and in biomedical sciences and provides an essential foundation for the practice of medicine.

The primary objective of the interdepartmental Molecular, Cellular, and Integrative Physiology Program is to train a new generation of physiologists who apply modern knowledge in molecular and cellular biology and systems physiology to important questions in organismic function. Students learn to conceptualize physiological questions across several levels of organization and to understand how research strategies incorporating each of the levels of analysis can be formulated. This approach to physiology education is responsive to the need for physiologists who can intellectually and technically span disciplines related to physiology that are typically separated.

Coursework consists of formal instruction in the most current information in molecular biology, cell biology, and the molecular and cellular foundations of physiology. In addition, students identify an area of emphasis in biophysics, cellular and molecular biology, or integrative/comparative physiology in which additional studies are pursued. The heart of the program, however, is the research that leads to the dissertation, which is performed under the guidance of a faculty mentor. The program faculty includes more than 115 professors in the Geffen School of Medicine and College of Letters and Science. Collectively they have been recently ranked by the National Research Council in the top five in the U.S. for their quality as an academic faculty.

Graduate Study

Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Division website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Graduate Degree

The Molecular, Cellular, and Integrative Physiology Program offers the Doctor of Philosophy (PhD) degree in Molecular, Cellular, and Integrative Physiology.

Molecular, Cellular, and Integrative Physiology Lower-Division Courses

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

90. Student Research Program. (1 to 2) Tutorial (supervised research or other scholarly work), three hours per week per unit. Entry-level research for lower-division students under guidance of faculty mentor. Students must be in good academic standing and enrolled in minimum of 12 units (excluding this course). Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP grading.

Graduate Courses

214. Research Grant Writing in Biomedical Sciences. (4) Lecture, three hours. Designed for Molecular, Cellular, and Integrative Physiology program students. Training in designing, writing, and evaluating research project and fellowship grants. How grant applications are structured and what features contribute to grant application success. How individual research project grants (RO1) and exploratory/development research grants (R21) to National Institutes of Health (NIH) are structured and differ. How applications for predoctoral fellowships from NIH (F31) and American Heart Association (AHA) are organized. Development and writing of students’ own RO1, R21, F31, or AHA grant application. Letter grading.


249. Seminar: Pathogenic Mechanisms in Muscle Disease. (2) Seminar, two hours. Recent advances have been made in genetic identification of muscle disease, and some mechanisms involved have been elucidated. Focus on muscle diseases in which substantial mechanistic information has been obtained, including particular cellular locations and diseases associated with those locations. Topics include Duchenne muscular dystrophy, congenital muscular dystrophy, limb-girdle dystrophy, Ullrich myopathy, and other forms of genetically inherited muscle disease. S/U grading.


251. Integrative Genomics for Studying Complex Diseases. (2) Seminar, two hours. Requisite: course 252A. Lectures and supervised student presentations to offer graduate students opportunity to acquire deep understanding of advanced integrative genomic approaches and how these approaches can be applied to help understand molecular basis of diverse complex diseases. Topics include transcriptomics, genomics, functional genomics, network biology, and high-level integration. Letter grading.

252. Molecular Mechanisms of Human Diseases I. (4) Formerly numbered 252A. Lecture, four hours; discussion, two hours. Preparation: prior satisfactory molecular and cell biology coursework. Fundamental concepts and methodologies in modern biology and medicine, with emphasis on systems-based research and mechanistic understanding to human diseases and therapies as they apply to neural, immune, cardiovascular, and metabolic systems. Reading, review, and discussion of primary research literature ad-
dressing fundamental concepts and methodologies in related topic areas of human biology and diseases. Emphasis on development of scientific skills in critical analysis, knowledge acquisition and self-learning, as well as effective articulation in scientific debate and exchange. Letter grading.

262. Molecular Mechanisms of Human Diseases II. (6) Formerly numbered 262A. Lecture, four hours; discussion, two hours. Preparation: prior satisfactory molecular biology coursework. Requires: course 252. Fundamental concepts and methodologies in modern biology and medicine, with emphasis on systems-based research and mechanistic understanding to human diseases and therapies as they apply to neural, cardiovascular, and metabolic systems. Includes reading, review, and discussion of primary research literature addressing fundamental concepts and methodologies in related topic areas of human biology and diseases. Emphasis on development of scientific skills in critical analysis, knowledge acquisition and self-learning, and effective articulation in scientific debate and exchange. Letter grading.

290A-290B-290C. Tutorials. (4-4-4) Tutorial, two hours. Discussion, analysis, and critique of original research literature. Letter grading. 290A. Cellular and Molecular Physiology; 290B, Biophysics; 290C, Integrative and Comparative Physiology.

296. Research Seminar. (2) Seminar, to be arranged. Review of literature, discussion of original research, and analysis of current topics in molecular, cellular, and integrative physiology. May not be applied toward PhD course requirements. May be repeated for credit. S/U grading.

375. Teaching Apprentice Practicum. (1 to 4) Seminar, to be arranged. Preparation: apprentice personnel employment as teaching assistant, associate, or fellow. Teaching apprenticeship under active guidance and supervision of regular faculty member responsible for curriculum and instruction at UCLA. May not be applied toward PhD course requirements. May be repeated for credit. S/U grading.

596. Directed Individual Study or Research. (2 to 10) Tutorial, to be arranged. May be repeated for credit. S/U or letter grading.

597. Preparation for PhD Qualifying Examinations. (2 to 10) Tutorial, to be arranged. May not be applied toward PhD course requirements. May be repeated for credit. S/U grading.

599. Research for PhD Dissertation. (2 to 10) Tutorial, to be arranged. May not be applied toward PhD course requirements. May be repeated for credit. S/U grading.

Molecular Toxicology
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Scope and Objectives
Faculty from 19 departments from six schools at UCLA, including chemistry and biochemistry, environmental health sciences, epidemiology, medicine, molecular and medical pharmacology, and pathology and laboratory medicine, have joined forces to create an interdisciplinary PhD program in Molecular Toxicology that is administered through the Fielding School of Public Health.

Specialties within the program include, but are not limited to, neurotoxicology, developmental toxicology, genetic toxicology, and carcinogenesis. There is a particular emphasis on mechanisms of toxicity, since it is now widely accepted that understanding mechanisms will provide the means for accurately determining risk.

New chemicals have been the basis for most of the technological developments during the past century, and there is no question that society has reaped enormous benefits from the creation and growth of the chemical industry. However, major health and environmental problems have also been the legacy of the synthesis of new chemical species. The discipline of toxicology, which seeks to characterize and elucidate the mechanisms of the problems related to exposure of chemical agents, has also developed from a purely descriptive to a mechanistic science whose objective is to understand the basis of toxicity action, predict the toxicity of new chemical entities, and protect organisms from them. Toxicology has used the basic disciplines of chemistry, biochemistry, and cell biology to advance understanding of toxicological phenomena, and the growth of the sophistication of toxicology has paralleled the increase in knowledge derived from the basic chemical and biological sciences.

Graduate Study
Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Division website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Graduate Degree
The Molecular Toxicology Program offers the Doctor of Philosophy (PhD) degree in Molecular Toxicology.

Molecular Toxicology
Lower-Division Courses
19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

99. Student Research Program. (1 to 2) Tutorial (supervised research or other scholarly work), three hours per week per unit. Entry-level research for lower-division students under guidance of faculty mentor. Students must be in good academic standing and enrolled in a minimum of 12 units (excluding this course). Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP grading.

Upper-Division Course
197. Individual Studies in Molecular Toxicology. (2 to 4) Tutorial, four hours. Limited to juniors/seniors. Individual intensive study, with scheduled meetings to be arranged between faculty member and student. Assigned reading and tangible evidence of mastery of subject matter required. May be repeated for credit. Individual contract required. P/NP or letter grading.

Graduate Courses
211A-211B-211C. Molecular Toxicology Seminars. (1–1–1) Seminar, one hour twice per month. Seminar series which alternately features outside speakers and members of UCLA molecular toxicology community (students, postdoctoral fellows, and faculty) and deals with topics relevant to molecular toxicology. Progress (211A, 211B) and S/U (211C) grading.

M242. Toxicodynamics. (2) (Same as Environmental Health Sciences M242) Lecture, one hour; discussion, one hour. Preparation: undergraduate biology and chemistry courses. Requisite: Environmental Health Sciences C240. Examination of recent literature on mechanisms of toxicity or toxicodynamics. Student presentation of papers selected by instructor on various aspects of toxic mechanisms, including free radical mechanisms, mechanisms of cell death, metal toxicity/ion homeostasis, intracellular pH and calcium regulation, stress and adaptive pathways, DNA repair/mutations, carcinogenesis, and teratogenesis. Discussion of various papers. S/U or letter grading.


296B-296F. Research Topics in Molecular Toxicology. (2–2) Research group meeting, two hours. Advanced study and analysis of current topics in molecular toxicology. Discussion of current research and literature in research specialty of faculty member teaching course. S/U grading: 296B. Molecular Carcinogenesis. 296F. Genetic Toxicology.

596. Directed Individual Study or Research. (2 to 12) Tutorial, to be arranged. Individual guided studies under direct faculty supervision. May not be applied toward degree course requirements. May be repeated for credit. S/U or letter grading.

597. Preparation for PhD Qualifying Examinations. (2 to 12) Tutorial, four hours. May not be applied toward degree course requirements. May be repeated for credit. S/U grading.

599. PhD Dissertation Research. (8 to 12) Tutorial, to be arranged. May not be applied toward degree course requirements. May be repeated for credit. S/U grading.
Music
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Music
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Roger Bourland, PhD
Kenneth E. Burrell, BA
Paul S. Chihara, PhD
Maurice Gerow, PhD
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Frederick F. Hammond, PhD
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D. Thomas Lee, DMA
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Herbert J. Hancock, DFA
Christopher Hanulik, BM
Wayne Shorter, BME
Peter F. Yates, DMA

Adjunct Associate Professor
S. Daniel Szabo, DMA

Scope and Objectives

The Department of Music offers undergraduate and graduate training in Western classical music, with specialized undergraduate programs in music composition, education, and performance. Jazz performance is also offered at the graduate level. The department is aligned with the Departments of Ethnomusicology and Musicology and the interdepartmental program in Global Jazz Studies, and aspires to promote productive collaboration between performance and scholarship, a cross-cultural global understanding of the art of music, and preparatory training for a broad range of careers in music after students graduate.

The department offers four-year bachelor’s degrees in music, music composition, music education, and music performance. The curriculum for all four degrees balances a classically oriented program of practical, theoretical, and historical studies with related performance and academic studies in non-Western music. Designed for students who want to combine fine musicianship with academic excellence, all four degrees are based on a core curriculum of theory, history, analysis, and individual and group performance. The music education major additionally offers preparation in pedagogical skills and innovative insights into theories and practice essential to teach music to the diverse student population of California and offer leadership in the field of arts education.

At the graduate level, specialized studies leading to the degrees of Master of Arts and Doctor of Philosophy are offered in composition; specialized studies leading to the degrees of Master of Music and Doctor of Musical Arts are offered in all classical solo instruments, voice, and conducting. Jazz performance is offered at the master’s degree level. Students interested in a concentration in music history and literature should consider the major in Musicology, and those interested in a concentration in world music should consider the major in Ethnomusicology.

Undergraduate Study

The music majors are designated capstone majors. Through preparation for and execution of their senior capstone projects or recitals, students demonstrate mastery of program learning outcomes as well as a level of proficiency appropriate for their role in the recitals and their understanding of performance practices appropriate to the repertory being performed, as acquired in previous coursework and through research. Students also display their ability to assemble an effective program in terms of pacing and variety and demonstrate requisite stage presence along with an ability to communicate with their audience in performance.

Music BA

Capstone Major

Learning Outcomes

The Music major has the following learning outcomes:

- Proficiency appropriate for role in the recital
- Understanding of performance practices, as acquired through coursework and research, appropriate to the repertory being performed
- Ability to assemble an effective program in terms of pacing and variety
- Requisite stage presence and ability to communicate with audience in performance

Admission

Applications for the Music BA are not being accepted at this time.

Preparation for the Major

All entering freshmen are required to take the Music Theory Assessment Examination either during New Student Orientation or during zero week of fall quarter. The examination score is used to determine eligibility and placement in first-year music core courses (Music M6A, M6B, M6C and 20A, 20B, 20C). Examination results may require enrollment in Music 3 as a requisite to both courses M6A and 20A. Entering transfer students with fewer than 15 units of prior music theory must take the Music Theory Assessment Examination.

Required: Music M6A, M6B, M6C, with grades of C– or better, 20A, 20B, 20C, with grades of C or better, 12 units from courses 60A through 61A, and two years (12 units) of performance organizations utilizing students’ major instruments (courses C185A through 185H and C186A through C186C), as assigned by the chair or designated faculty member.
The Major
Required: Music 120A, 120B, 120C, 140A, 140B, 140C, with grades of C or better, and six theory courses selected in consultation with a faculty adviser.

Music Composition BA
Capstone Major
Learning Outcomes
The Music Composition major has the following learning outcomes:
• Demonstrated artistic proficiency on a primary instrument or in voice
• Demonstrated excellent aural musicianship skills and a working knowledge of music theory and music history
• Composition of vocal, instrumental, and/or electronic music in varied genres and forms
• Demonstrated knowledge and application of vocal, instrumental, and electronic performance techniques and acoustical properties to scoring and orchestration, including proficiency with notation and sequencing software
• Demonstrated knowledge of counterpoint and polyphonic styles and textures in Renaissance, Baroque, Classical-Romantic, and/or contemporary practice
• Demonstrated fundamentals of conducting an ensemble, including basic patterns and gestural principles, scores analysis skills, and rehearsal techniques

Admission
For new and change-of-major applicants, students must submit a portfolio of compositions prior to the required audition and interview with the composition faculty.

Preparation for the Major
All entering freshmen are required to take the Music Theory Assessment Examination either during New Student Orientation or during zero week of fall quarter. The examination score is used to determine eligibility and placement in first-year music core courses (Music M6A, M6B, M6C and 20A, 20B, 20C). Examination results may require enrollment in Music 3 as a requisite to both courses M6A and 20A. Entering transfer students must take the Music Theory Assessment Examination to determine placement in the appropriate music theory sequence.

Required: (1) Musicanship—Music M6A, M6B, M6C, with grades of C– or better; (2) Theory—Music 20A, 20B, 20C, with grades of C or better; (3) Instrumental studio—12 units from Music 60A through 60U in one instrument; (4) Composition studio—6 units of Music 66; (5) Large conducted ensembles—12 units from Music C185A through 185H using the student’s major instrument, as assigned by the chair or designated faculty member.

Music Education BA
Capstone Major
Learning Outcomes
The Music Education major has the following learning outcomes:
• Demonstrated artistic proficiency on a primary instrument or in voice
• Demonstrated excellent aural musicianship skills and a working knowledge of music theory and music history
• Demonstrated knowledge of a varied repertory of music that includes Western, non-Western, and a working knowledge of music theory and music history
• Demonstrated knowledge of a varied repertory of music that includes Western, non-Western, and popular musical genres
• Development of pedagogical skills, assessment strategies, and musical leadership abilities in classroom, instrumental, and choral settings
• Demonstrated basic skills in secondary performance areas and music technology
• Identification and description of major concepts and theories of educational psychology
• Development of the flexibility necessary to teach music in traditional and non-traditional settings

Admission
Applicants are required to audition in their primary performance medium and interview with the music education faculty.

Preparation for the Major
All entering freshmen are required to take the Music Theory Assessment Examination either during New Student Orientation or during zero week of fall quarter. The examination score is used to determine eligibility and placement in first-year music core courses (Music M6A, M6B, M6C and 20A, 20B, 20C). Examination results may require enrollment in Music 3 as a requisite to both courses M6A and 20A. Entering transfer students must take the Music Theory Assessment Examination to determine placement in the appropriate music theory sequence.

Required: (1) Musicanship—Music M6A, M6B, M6C, with grades of C– or better; (2) Theory—Music 20A, 20B, 20C, with grades of C or better; (3) Instrumental or vocal studio—12 units from Music 60A through 60U for instrumentalists of 15 units of Music 61A and 61C for vocalists; (4) Large conducted ensembles—18 units from Music C185A through 185H, as assigned by the chair or music education faculty member.

Music Performance BM
Capstone Major
Learning Outcomes
The Music Performance major has the following learning outcomes:
• Demonstrated artistic proficiency on a primary instrument or in voice
• Demonstrated excellent aural musicianship skills and a working knowledge of music theory and music history
• Demonstrated artistic proficiency and flexibility as performer and collaborator in varied settings, including chamber ensembles and large conducted ensembles
• Demonstrated knowledge of history and performance repertoire for a primary instrument or voice and representative works for chamber and large conducted ensembles from the majors periods of Western classical music, including contemporary compositions
• Demonstrated ability to apply knowledge of compositional form, historical context, performance practices, extended techniques, nontraditional notation, and current issues to performance of Western classical music
• Demonstrated knowledge about genres other than Western classic music or the scholarly study of music and/or the business practices associated with the music industry
• Conception, preparation, and performance of a public solo recital of Western classical music, including a printed program and program notes

Admission
Applicants are required to audition in their principal performance medium and interview with the music performance faculty.
Preparation for the Major

All entering freshmen are required to take the Music Theory Assessment Examination during New Student Orientation or during zero week of fall quarter. The examination score is used to determine eligibility and placement in first-year music core courses (Music M6A, M6B, M6C and 20A, 20B, 20C). Examination results may require enrollment in Music 3 as a requisite to both courses M6A and 20A. Entering transfer students must take the Music Theory Assessment Examination to determine placement in the appropriate music theory sequence.

Required: (1) Musicianship—Music M6A, M6B, M6C, with grades of C– or better; (2) Theory—20A, 20B, 20C, with grades of C or better.

Based on instrument or voice, one concentration selected below:

Brass, percussion, and woodwinds: (1) Instrumental studio—12 units from Music 60A through 60J; (2) Chamber ensembles—4 units from Music C175A through C175G; (3) Large conducted ensembles—12 units from Music C185D through 185H.

Keyboard: (1) Instrumental studio—12 units from Music 60S, 60T, or 60U; (2) Chamber ensembles, keyboard literature, and accompanying—8 units from Music C175A through C175G, C171, or C186A; (3) Large conducted ensembles—6 units from Music C185A through 185H.

Strings: (1) Instrumental studio—12 units from Music 60K through 60R; (2) Chamber ensembles—6 units from Music C175A through C175G; (3) Large conducted ensembles—12 units from Music C185D or C185E.

Voice: (1) Voice studio and voice coaching—18 units of Music 61A and 61B; (2) Singing diction—Music 74A, 74B, 74C; (3) Large conducted ensembles—12 units from Music C185A through C185C; (4) Language—one college year—or at least one course at level three—of French, German, Italian, or Spanish, which may be used to fulfill the school language requirement.

The Major

Required: (1) Theory—Music 120A, 120B, 120C, with grades of C or better; (2) History—140A, 140B, 140C, with grades of C or better.

Based on instrument or voice, one concentration selected below:

Brass, percussion, and woodwinds: (1) Advanced instrumental studio—10 units from Music 160A through 160J; (2) Chamber ensembles—4 units from Music C175A through C175G; (3) Large conducted ensembles—12 units from Music C185D through 185H; (4) Electives—at least 8 units of upper division electives from ethnomusicology, global jazz studies, music, music industry, or musicology; (5) Capstone instrumental recital—one course from Music 167S, 167T, or 167U. In senior year, each student must present a senior recital as part of the capstone course; the 45–55-minute recital will include a printed program with notes. All recitals are videotaped and archived; performances are evaluated by a jury.

Strings: (1) Advanced instrumental studio—10 units from Music 160K through 160T; (2) Chamber ensembles—6 units from Music C175A through C175G; (3) Large conducted ensembles—12 units from Music C185D or C185E; (4) Electives—at least 8 units of upper division electives from ethnomusicology, global jazz studies, music, music industry, or musicology; (5) Capstone instrumental recital—one course from Music 167K through 167R. In senior year, each student must present a senior recital as part of the capstone course; the 45–55-minute recital will include a printed program with notes. All recitals are videotaped and archived; performances are evaluated by a jury.

Voice: (1) Advanced voice studio and advanced voice coaching—15 units of Music 161A and 161B; (2) Advanced vocal repertoire, diction, and interpretation—4 units from Music C185A through C185G; (3) Large conducted ensembles—12 units from Music C185A, C185B, or C185C; (4) Electives—at least 4 units of upper division electives from ethnomusicology, global jazz studies, music, music industry, or musicology; (5) Capstone voice recital—Music 161B and 161C. In senior year, each student must present a senior recital as part of the capstone course; the 45–55-minute recital will include a printed program with notes. All recitals are videotaped and archived; performances are evaluated by a jury.

Graduate Study

Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Division website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Graduate Degrees

The Department of Music offers the Master of Music (MM) degree, Doctor of Musical Arts (DMA) degree, and Master of Arts (M.A), Candidate in Philosophy (CPhil), and Doctor of Philosophy (PhD) degrees in Music.

Music

Lower-Division Courses

3. Preparatory Music Theory. (4) Lecture, four hours; laboratory, one hour. Course in music fundamentals, including musicianship, theory, and terminology. Letter grading.

M6A-M6B-M6C. Introduction to Musicianship. (2–2-2) (Same as Ethnomusicology M6A-M6B-M6C and Musicology M6A-M6B-M6C.) Laboratory, four hours. Preparation: placement examination. Course M6A is enforced requisite to M6B, which is enforced requisite to M6C. Students must receive grade of C– or better to proceed to next course in sequence. Introduction to musicianship through in-depth exploration of basic common musical elements and training in aural recognition, sight singing, dictation, and keyboard skills. Focus on topics such as tonal and modal harmony, rhythm, improvisation, composition, notation, and ear training to prepare students for later theory courses, participation in music ensembles, advanced study in music, and professional careers. Letter grading.

7. Understanding Movie Music. (4) Lecture, four hours; outside study, eight hours. Musical experience helpful, but not required. Brief historical survey of film music, with strong emphasis on recent development: Japanese animation, advertising, and MTV, as well as computer tools and digital scoring methods. Designed to inspire and inform those interested in movie music. Offered in summer only. P/NP or letter grading.

15. Art of Listening. (6) Lecture, three hours; discussion, one hour; outside study, 11 hours. Acquisition of listening skills through direct interaction with live performance, performers, and composers. Relationship of listening to theoretical, analytical, historical, and cultural frameworks. Music as aesthetic experience and cultural practice. P/NP or letter grading.


19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

20A. Music Theory I. (3) Lecture, four hours. Preparation: passing score on departmental examination. Course 20A is enforced requisite to 20C. Students must receive grade of C or better to proceed to next course in sequence. Theory: species counterpoint through fifth species; description of triads and inversions. P/NP or letter grading.

20B. Music Theory II. (3) Lecture, four hours. Enforced requisite: course 20A with grade of C or better. Theory: diatonic harmony through secondary dominants and diminished sevenths; modulations to dominant and relative keys; writing of four-part chorales; style composition in baroque dance forms; introduction to figured bass notation. P/NP or letter grading.

20C. Music Theory III. (3) Lecture, four hours. Enforced requisite: course 20B with grade of C or better. Theory: chromatic harmony including development of tonality, 1800 to 1850; appropriate analysis and style composition. P/NP or letter grading.


50. Alexander Technique. (2) Lecture, four hours; outside study, practice, one hour. May be repeated for max-
ium of 12 units. P/NP or letter grading. 60A. Flute. (Formerly numbered 61A.) 60B. Oboe. (Formerly numbered 61B.) 60C. Bassoon. (Formerly numbered 61D.) 60D. Clarinet. (Formerly numbered 61C.) 60E. Saxophone. (Formerly numbered 61E.) 60F. French Horn. (Formerly numbered 62B.) 60G. Trumpet. (Formerly numbered 62A.) 60H. Trombone. (Formerly numbered 62C.) 60L. Viola. (Formerly numbered 62D.) 60P. Piano. (Formerly numbered 62K.) 60R. Violin. (Formerly numbered 60A.) 60S. Beginning Piano Class. (1) 60T. Voice Coaching. (1) 60U. Bassoon. (Formerly numbered 61D.) 60V. Viola da Gamba. (Formerly numbered 60G.) 60W. Beginning Guitar Class. (4) 60X. Piano Laboratory. (5) 60Y. French Horn. (Formerly numbered 60K.) 60Z. Trumpet. (Formerly numbered 60F.)

61A. Voice Studio. (2) Formerly numbered Music 65. Studio, one hour; outside practice, six to eight hours. Corequisite: course 61B or 61C. Limited to lower-division Music Performance majors. Specializes in voice and Music Education majors. Emphasis on repertoire and improving performance. Grades are assigned by studio instructor in conjunction with student's vocal coach and are based on a 2-point scale and by jury examination in spring quarter. May be repeated for maximum of 6 units. P/NP or letter grading.

61B. Voice Coaching. (1) Studio, one hour; outside practice, three hours. Corequisite: course 61A. Limited to lower-division Music Performance majors. Specializes in voice and Music Education majors. Emphasis on repertoire and improving performance. Grades are assigned by studio instructor in conjunction with student's vocal coach and are based on a 2-point scale and by jury examination in spring quarter. May be repeated for maximum of 6 units. P/NP or letter grading.

61C. Voice Coaching for Music Education Specialists. (3) Studio, 30 minutes; outside practice, 90 minutes. Corequisite: course 61A. Limited to lower-division Music Education majors. Emphasis on repertoire and improving performance. Grades are assigned by studio instructor in conjunction with student's vocal coach and are based on a 2-point scale and by jury examination in spring quarter. May be repeated for maximum of 3 units. P/NP or letter grading.

66. Composition Studio. (2) Studio, one hour per week to be arranged with instructor; outside study, five to seven hours. Enforced requisites: courses 20A, 20B, 20C. Limited to Music Composition students and designated for sophomores. One-on-one composition lessons will be given. Emphasis will be placed on composition tailored to student progress and level of achievement. Lessons address counterpoint, voice-leading, harmonic and melodic construction, orchestration, form, texture, style, music theory, and music analysis. Any piece by re-petition will be twice for credit. P/NP or letter grading.

74A-74B-74C. Introduction to Singing Diction. (2–3–2) Studio/demonstration/Performance, 90 minutes; outside study, four to five hours. Development of International Phonetic Alphabet (IPA) transcription skills, along with addressing issues of translation. Exploration of variety of vocal repertoire, including opera, art songs, early music, recitative, and folk songs. Transcription, translation, speaking, and singing of texts from pieces assigned in course, as well as from repertoire being prepared for juries. P/NP or letter grading.

74A. English and Italian. Introduction to basics of singing diction and development of English and Italian skills for beginning students. 74B. German. Introduction to basics of singing diction and development of German skills for beginning students. 74C. French. Introduction to basics of singing diction and development of French skills for beginning students.

80A. Beginning Keyboard. (4) Laboratory, five hours; preparation/practice, seven hours. Simple keyboard skills together with basic aspects of music theory and its practical application on the keyboard: sight-reading, theory, chords, scales, cadences, simple compositions, and improvisations. May be repeated for credit without limitation. Offered in summer only. P/NP or letter grading.

80B. Intermediate Keyboard. (4) Laboratory, five hours; preparation/practice, seven hours. Enforced requisites: course 80A. Review of basic keyboard con-CEPTS, with focus on developing comprehensive keyboard musicianship ranging from music theory, sight-reading, composing, improvising, analysis of form, study of musical terms and notations, chords, scales, cadences, transposing, and ear training. Offered in summer only. P/NP or letter grading.

80C. Sight Singing and Ear Training. (4) Laboratory, four hours. Designed for students of all ages and genres to improve their ability to sing by ear and/or read vocal music. Class is conducted as much as possible without instrumental accompaniment (i.e., a cappella), and special emphasis is placed on acquisition of skills related to relative pitch and recognition of intervals (i.e., relationships between pitches). Letter grading.

80F. Beginning Guitar Class. (4) Laboratory, five hours; preparation/practice, seven hours. Introduction to guitar techniques, accompanying, and arranging for guitar; coverage of note reading and tabulature. May be repeated for credit without limitation. Offered in summer only. P/NP or letter grading.

80G. Beginning Saxophone. (4) Laboratory, five hours; preparation/practice, seven hours. Fundamentals of playing saxophone, theory and terminology necessary for reading music notation, and basic overview of instrument's history. Offered in summer only. P/NP or letter grading.

80V. Vocal Technique for Beginners. (4) Laboratory, six hours; preparation/practice, seven hours. Voice instruction for singers at beginning to intermediate level. Exploration of fundamentals of vocal technique, including overview of basics of proper breath control, resonance, care of voice, diction, and interpretation. Beginning vocal repertoire used as vehicle for understanding these concepts. May be repeated for credit without limitation. Offered in summer only. P/NP or letter grading.

80W. Woodwind Technique for Beginners. (4) Laboratory, six hours; preparation/practice, six hours. Woodwind instruction designed to give students knowledge of fundamentals of techniques of saxophone, clarinet, oboe, bassoon, and flute. Offered in summer only. P/NP or letter grading.

89. Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to lower-division lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

M90T. Early Music Ensemble. (4) Same as Musicology CM90T. Activity, four hours. Preparation; audition. Group performance of Western vocal and instrumental repertoire from the Middle Ages to the Baroque. Emphasis on early instruments and early music instruction. Early instruments may be used at instructor's discretion. May be repeated for credit without limitation. P/NP or letter grading.

99. Student Research Program. (1 to 2) Tutorial (supervised research or other scholarly work), three hours per week per unit. Entry-level research for divisional students under guidance of faculty mentor. Students must be in good academic standing and enrolled in minimum of 12 units (excluding this course). Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP or letter grading.

Upper-Division Courses

M103. Creating Musical Community. (4) Same as Musicology M103C. Global Jazz Studies M103C. 103C. Seminar, four hours; discussion, one hour. Limited to school of music majors. Faculty and students make music together in different models: community centers, kirtan, jam sessions, and putting it to concert performance. Students critically engage musical literacy and notion of social contract that forms basis of musical notation. Drawing from American music, students develop complex history of this country and way in which entire body is used as resource when instruments are unavailable. Letter grading.

104A. Modal Counterpoint. (3) Lecture, three hours. Required course 120C (accelerated section). In-depth exploration of styles and techniques of counterpoint of 15th and 16th centuries through writing and analysis of important forms of period, including species. Corequisites: courses 20A, 21A, 20B, 21B. 104B. Special Topics in Counterpoint. (3) Lecture, three hours. Required course 120C (accelerated section). In-depth exploration of polyphonic styles and techniques since 1750, with emphasis on late-19th- and 20th-century modes of expression, through writing and analysis. Letter grading.


C109A. Oboe Reed Making. (1) Activity, one hour; outside study, two hours. Enrollment by consent of instructor. Introduction and overview of oboe reed making, including wood and tools and techniques necessary to develop and maintain oboe reeds. May be repeated for credit. May be concurrently scheduled with course C209B. P/NP or letter grading.

C109B. Bassoon Reed Making. (1) Activity, one hour; outside study, two to three hours. Enrollment by consent of instructor. Introduction, overview, and hands-on training with necessary instruments necessary to develop and maintain bassoon reeds. May be repeated for credit. May be concurrently scheduled with course C209B. P/NP or letter grading.

110A. Learning Approaches in Music Education. (4) Lecture, two hours; activity, two hours; outside study, eight hours. Enforced requisites: course 20A. Introduction to music education by development of concepts, attitudes, and skills necessary to teach music and philosophical, historical, cultural, and psychological foundations of music education, with emphasis on learning theories and psychology of music learning. Contextualization of concepts by engaging in nonno- tational modes of music learning, including systematic aural transmission and informal learning. Letter grading.

110B. Musicality and Creativity in Childhood. (4) Lecture, two hours; activity, two hours; outside study, eight hours. Enforced requisites: courses 20C, 116A, 116B, 120A, 120B, 120C. Preparation of music education students for teaching music at preschool and elementary school levels. Development of understanding of developmental and functional characteristics of music learning, and learning needs of children and design of effective instructional strategies that are age-appropriate and responsive to children's background. Focus on practice of student-centered curriculum where students are active learners and teachers are facilitators to become proficient in providing children with music learning environment that is conducive to optimal growth in their musicality and creativity. Frequent field visits. Letter grading.

110C. Comparative Study of Choral Music Education. (4) Lecture, two hours; activity, one hour; fieldwork, one hour; outside study, eight hours. Enforced requisites: courses 20A, 20B, 20C, 116A, 116B, 120A, 120B, 120C. Preparation of music education students for teaching choral music at middle and high school levels. Development of understanding of developmental and functional characteristics of music learning, and learning needs of children and design of effective instructional strategies that are age-appropriate and responsive to students' background. Corequisites: courses 80E, 110D. Professional choral music of American and world serve as basis of comparative study, with emphasis on comprehensive music education through performance. Frequent field visits.

110D. Comparative Study of Instrumental Music Education. (4) Lecture, two hours; activity, one hour; fieldwork, one hour; outside study, eight hours. Enforced requisites: courses 20A, 20B, 20C, 116A, 120A, 120B, 120C. Critical study and analysis of philosophy,

112. Guided Field Experiences in Music Education. (1) Field studies, three hours. Initial field experiences for students preparing to teach and earn single subject certification in music. Novice teachers work under direct guidance of UCLA music education faculty members and practicing public school instructor to develop and deliver instruction in K-12 settings, P/NP grading.

114A-114B. Study of Instrumental Techniques. (1–2) Studio, three hours. Requisite or corequisite: course 20A. Applied studies in basic performance techniques and tutorial materials. Each course may be repeated once for credit. Letter grading. 114A. High Strings. 114B. Low Strings.

114C-114D. Vocal Techniques for Music Education I, II. (1–1) Studio, two hours; outside study, one hour. Letter grading. 114C. Introduction to basic vocal techniques, breath and body, vocal mechanism, health and care of voice, and instructional techniques. 114D. Requisite or corequisite: 114C. Instruction in art of teaching voice, focusing on vocal instruction in choral classroom. Focus on application of vocal techniques to choral music teaching at K-12 school settings.

114J. Piano Skill in Classroom. (1) Activity. Two hours. Designed for Music Education majors. Development of piano skills and competencies that enable students to function successfully in general music, instrumental ensemble, and choral ensemble classrooms. Letter grading.

115A-115B-115C. Study of Instrumental Techniques. (2–2–2) Studio, four hours; outside study, two hours. Applied study in music performance techniques and tutorial materials designed to give music education students knowledge to teach basic instrumental concepts. Letter grading. 115A. Woodwinds. 115B. Brass. 115C. Percussion.


117. Study and Conducting of Instrumental and Choral Literature. (2) Lecture, three hours. Requisite: course 116. Study and practice of conducting both instrumental and choral repertoire. In addition to further development of conducting techniques, focus on study techniques, rehearsal techniques, style, and interpretation as applied to choral and instrumental repertoire. Letter grading.

C118A. Advanced Choral Conducting. (2) Lecture, one hour; studio, two hours. Requisites: courses 116, 117. Conducting basics, baton technique, beat patterns, dynamics, score preparation and analysis. May be repeated once for credit. Concurrently scheduled with course C218A. P/NP or letter grading.

C118B. Choral Techniques and Methods. (2) Lecture, one hour; studio, two hours. Requisites: courses 116, 117, C118A. Vocal and choral pedagogy, vocalizing and pronunciation, rehearsal techniques, and audition techniques. May be repeated once for credit. Concurrently scheduled with course C218B. P/ NP or letter grading.

118. Jazz and Technology Pedagogy. (3) (Formerly numbered 118C.) Lecture, two hours; activity, two hours; outside study, five hours. Enforced requisites: courses 20A, 20B, 20C, 110A, 120A, 120B, 120C. Foundations for teaching jazz by development of understanding of jazz form, technique, improvisation, and uses of technology in jazz education. Technology understanding includes basic concepts of sequencing, composition, ensemble performance, and creation of multimedia presentations using tablet (iPad) technology. Letter grading.

120A. Music Theory IV. (4) Lecture, four hours; discussion, four hours. Preparation: passing score on departmental first-year examination. Requisite: course 20C with grade of C (2.0) or better. Theory: baroque counterpart including chorale prelude; two-part invention; exposition and first modulation of three-part invention; canon; principles; analysis of inventions, canons, and fugues. Musicianship: sight-singing of extended chromatic melodies; advanced harmonic dictation; diatonic and minor scales and chord progression; modulating harmonies; elementary score reading. P/NP or letter grading.

120B. Music Theory V. (4) Lecture, four hours; discussion, two hours. Requisite: course 120A with grade of C (2.0) or better. Theory: advanced chromatic harmony including development of harmony from 1850; analytical projects; style composition. Musicianship: advanced score reading; advanced harmonic dictation; preparation for departmental examination. P/NP or letter grading.

120C. Music Theory VI. (4) Lecture, four hours; discussion, two hours; listening, two hours. Requisite: course 120B with grade of C (2.0) or better. 20th-century harmonic language, including nonfunctional harmony, polytonality, free atonality, serialism, and minimalism. P/NP or letter grading.

121. Special Topics in 20th-Century Music. (4) Lecture, discussion, three hours. Requisites: courses 20A, 20B, 20C, 120A, 120B, 120C. In-depth study of certain aspects of 20th-century music ranging from individual composers and schools to ideological or stylistic concerns. May be repeated once for credit. P/NP or letter grading.

122. Speculative Music Theory. (4) (Formerly numbered C122.) Seminar, three hours. Requisites: courses 120A, 120B, 120C. Exposition, counterpoint and sonata form. P/NP grading.


124B. Scoring for Wind Ensemble. (4) Discussion, three hours. Requisites: courses 106B, 120C (accelerated section), 123C. Practical applications in scoring for large wind ensembles. Preparation and production of score and parts. May include percussion. At least one reading by UCLA Wind Ensemble scheduled. Letter grading.

124C. Scoring and Arranging for Choral Ensemble. (4) Discussion, three hours. Requisites: 106B, 120C (accelerated section), 123C. Practical applications in scoring and arranging for choral ensembles, including a capella as well as choral with instruments. Preparation and production of score and parts. At least one reading by UCLA Chorale or other choral group scheduled. Letter grading.

M131. Development of Latin Jazz. (4) (Same as Ethnomusicology M131 and Global Jazz Studies M131.) Lecture, four hours; discussion, one hour. Survey of historical and stylistic development of musical style referred to today as Latin jazz. Letter grading.

M134. Introduction to Armenian Music. (4) (Same as Armenian M134 and Ethnomusicology M134.) Lecture, three hours. Some amount of formal music study as Armenian M134 and Ethnomusicology M134 referred to today as Latin jazz. P/NP or letter grading.

C150. Keyboard Skills for Pianists. (2) Activity, two hours; outside study, four hours. Applied music course with focus on necessary skills for piano performance. Topics include sight playing, improvisation, figured bass, harmonization, improvisation, score reduction, and ensemble issues. Concurrently scheduled with course C450. P/NP or letter grading.


160A-160U. Advanced Instrumental Studio. (2 each) Studio, one hour; outside practice, six to eight hours. Enrolled in junior/senior music performance majors and junior Music Education and Music Composition majors. Students must perform in noon concert once during their junior year. Grades are assigned by applied instructor in fall and winter quarters and by jury examination in spring quarter. May be repeated for maximum of 10 units. P/NP or letter grading. 160A. Flute. (Formerly numbered 161A.) 160B. Oboe. (Formerly numbered 161B.) 160C. Bassoon. (Formerly numbered 161D.) 160D. Clarinet. (Formerly numbered 161C.) 160E. Saxophone. (Formerly numbered 161E.) 160F. French Horn. (Formerly numbered 160G.) 160G. Trumpet. (Formerly numbered 162A.) 160H. Trombone. (Formerly numbered 162C.) 160I. Tuba/Euphonium. (Formerly numbered 162D.) 160J. Percussion. (Formerly numbered 162E.) 160K. Violin. (Formerly numbered 160A.) 160L. Viola. (Formerly numbered 160B.) 160M. Cello. (Formerly numbered 160D.) 160N. String Bass. (Formerly numbered 160G.) 160P. Guitar. (Formerly numbered 160F.) 160Q. Lute. (Formerly numbered 160K.) 160R. Viola da Gamba. (Formerly numbered 160G.) 160S. Piano. (Formerly numbered 164A.) 160T. Organ. (Formerly numbered 164B.) 160U. Harpsichord. (Formerly numbered 164C.)

161A. Advanced Voice Studio. (2) (Formerly numbered 165.) Studio, one hour; outside practice, six to eight hours. Corequisite: course 161B or 161C. Limit is to junior/senior music performance majors and Music Performance majors specializing in voice. Voice techniques and health, including breath control, pitch accuracy, range, resonance, and flexibility. May be repeated for credit for a maximum of 10 units. P/NP or letter grading.

161B. Advanced Vocal Coaching. (1) Studio, one hour; outside practice, three hours. Corequisite: course 161A. Limited to upper-division Music Performance majors specializing in voice. Emphasis on repertoire and improving performance. Grades are assigned by studio instructor in conjunction with student’s vocal coach for fall and winter quarters and by jury examination in spring quarter. May be repeated for maximum of 6 units. P/NP or letter grading.

CM182. Music Industry. (4) Same as Ethnomusicology CM182, Musicology CM186, and Music Industry CM188. (Formerly numbered CM182.) Lecture, three hours; outside study, six to eight hours. Preparation: audition for music business/industry majors. Exploration of topics in music industry is way music is created, performed, and used today. Historical approach taken, beginning with music published in 18th century and continuing through development of audio recordings to MTV and popular music. Group performance of senior capstone course currently scheduled with course CM282, Letter grading.

C185A. UCLA Chorale. (2) Formerly numbered C90A.) Activity, four hours. Preparation: audition. Large mixed ensemble performing choral music of all periods appropriate for concert choral ensemble. May be repeated for credit without limitation. May be concurrently scheduled with course C480A. P/NP or letter grading.

C185B. Chamber Singers. (2) Formerly numbered (08C.) Activity, four hours. Preparation: audition. Designed primarily for Music Performance majors. Select mixed ensemble performing chamber choral music of all periods. May be repeated for credit without limitation. May be concurrently scheduled with course C480B. P/NP or letter grading.

C185C. Opera Workshop. (2) Formerly numbered (09D.) Activity, six hours. Preparation: audition. Rehearsal performance of selected operas, as well as repertoire, stage movement, and foreign language diction coaching. May be repeated for credit without limitation. May be concurrently scheduled with course C480C. P/NP or letter grading.

C185D. Symphony Orchestra. (2) Formerly numbered C308E.) Activity, three hours. Preparation: audition. Group performance of symphonic orchestral literature. May be repeated for credit without limitation. May be concurrently scheduled with course C480D. P/NP or letter grading.

C185E. Philharmonia. (2) Activity, six hours. Preparation: audition. Designed primarily for Music Performance majors. Group performance of symphonic orchestra literature, as well as orchestral accomplishments for operatic and major choral works. May be repeated for credit without limitation. May be concurrently scheduled with course C480E. P/NP or letter grading.


C185G. Wind Ensemble. (2) Formerly numbered C90G.) Activity, six hours. Preparation: audition. Group performance of concert literature for wind ensemble. May be repeated for credit without limitation. May be concurrently scheduled with course C480G. P/NP or letter grading.

185H. Marching and Varsity Bands. (2) Formerly numbered (09M.) Activity, six hours. Preparation: audition. Group performance of special band arrangements for football and basketball games as well as special events. May be repeated for credit without limitation. P/NP or letter grading.

C186A. Piano/Keyboard Accompanying. (2) Formerly numbered C90Q.) Activity, four hours; outside study, two hours. Collaboration with large ensembles, instrumentalists, and/or vocalists in role of accompanists. Performance includes, but is not limited to, lessons, rehearsals, special studio performance projects, master classes, concerts, auditions, juries, and recitals. May be repeated for maximum of 12 units. Concurrently scheduled with course C484A. P/NP or letter grading.

C186B. Guitar Accompanying. (2) Formerly numbered (09T.) Activity, four hours; outside study, two hours. Collaboration with instrumentalists and/or vocalists in role of accompanists. Performance includes, but is not limited to, lessons, rehearsals, special studio performance projects, master classes, concerts, auditions, juries, and recitals. May be repeated for credit without limitation. Concurrently scheduled with course C484B. P/NP or letter grading.

C186C. Harp Accompanying. (2) Formerly numbered (09U.) Activity, four hours; outside study, two hours. Collaboration with instrumentalists and/or vocalists in role of accompanists. Performance includes, but is not limited to, lessons, rehearsals, special studio performance projects, master classes, concerts, auditions, juries, and recitals. May be repeated for credit without limitation. Concurrently scheduled with course C484C. P/NP or letter grading.

186 Special Courses in Music. (4) Lecture, three hours; outside study, nine hours. Special topics in music for undergraduate students taught on experimental or temporary basis. May be repeated for credit. P/NP or letter grading.

188A. Individual Studies for USIE Facilitators. (1) Tutorial, to be arranged. Enforced prerequisite: Honors Collegium 101E. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor to discuss selected USIE seminar topic, conduct preparatory research, and begin preparation of syllabus. Individual contract with faculty mentor required. May not be repeated. Letter grading.

188B. Individual Studies for USIE Facilitators. (1) Tutorial, to be arranged. Enforced prerequisite: course 188SA. Enforced corequisite: Honors Collegium 101E. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor to facilitate course to fulfill USIE contract with faculty mentor required. May not be repeated. Letter grading.


189. Advanced Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to undergraduate lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

195. Community or Corporate Internships in Music. (2 to 4) Tutorial, six hours. Limited to juniors/seniors. Internship in supervised setting in community agency or business. Students meet on regular basis with supervising instructor and submit periodic reports of their work experiences. May be repeated for maximum of 8 units. Individual contract with supervising faculty member required. P/NP grading.

197. Individual Studies in Music. (2 or 4) Tutorial, one hour. Preparation: 3.0 grade-point average. Limited to seniors. Individual intensive study in music, with scheduled meetings to be arranged between faculty member and student. Tangible evidence of mastery of subject matter (research project) required. May be repeated for maximum of 8 units. Individual contract required. P/NP or letter grading.


166. Advanced Composition Studio. (2) Studio, one hour; outside study, five hours. Enforced prerequisite: course 66 (6 units). Limited to junior/senior music composition students. One-on-one composition lessons with composition professors; close student progress and level of achievement. Lessons address counterpoint, voice-leading, harmonic and melodic construction, orchestration, form, texture, style, notation feasibility. May be repeated for credit. P/NP or letter grading.

Graduate Courses

254. Advanced Music Analysis: Pre-Tonal Music. (4) Seminar, three hours. Designed to provide graduate composition students with in-depth exposure to complex and rich works of late Middle Ages through dawn of baroque era. Exploration of analytical techniques and methods in analysis of works of tonal and post-tonal periods, and approaches to musical structures used by composers before modern tonal harmonic syntax had fully developed. Letter grading.


260A. Seminar: Composition for Motion Pictures and Television. (6) Seminar, three hours; laboratory, three hours. Practical experience in composing for commercial movies. Difference between underscore and source music; realism/realisticeffect when they merge, as in MTV, dream sequences, or montages. Study of three principal areas of film-making—production, reproduction, and postproduction. Exercises in electroacoustic orchestration and discussion of their scores. Composition of actual cues for acoustic instruments coordinated to picture to be term project. Separate cues involve dialogue, melodrama, comedy, chase, memory montage, and tension. Letter grading.

260B. Seminar: Composition for Motion Pictures and Television. (6) Seminar, three hours; laboratory, three hours. Focus on task of completing entire score for television; includes student film. Discussion of recent television shows. Composition of one original title song and short cues to someone else's song required. Term assignment involves student orchestra recording to picture, designed to approximate actual conditions of completing professional Hollywood assignment, from spotting to scoring. Letter grading.

261A-261L. Problems in Performance Practices. (4 each) Seminar; three hours; outside study, nine hours. Limited to graduate performance students. Investigations of primary source readings in performance practices and analytical reports and practical applications in class demonstrations. May be repeated for credit. Letter grading.

282. Music Industry. (4) Same as Ethnomusicology 282. Seminar, four hours; discussion, four hours; outside study, seven hours. Designed for students interested in musicology majors. Examination of influence of music industry on way music is created, performed, listened to, evaluated, and used today. Historical approach taken, beginning with music published in 18th century and continuing through development of audio recordings to MTV and popular music today. Concurrently scheduled with course 282. Letter grading.

292. Seminar: Special Topics in Music. (4) Seminar, three hours. Exploration of topics in music through variety of approaches that may include projects, performances, readings, discussions, research papers, and oral presentations. Topics announced in advance. May be repeated for credit. S/U or letter grading.

300. Introduction to Orff Schulwerk. (2) Lecture, 10 hours; discussion, five hours; laboratory, 15 hours. Introduction to Orff Schulwerk methods with performing and music therapists who have had little or no previous experience with Orff Schulwerk. Introduction to Orff Schulwerk, including history, philosophy, and teaching approaches of this approach to music instruction for children. Offered in summer only. S/U or letter grading.

313A-331B-331C. Orff Schulwerk Training Courses. (4-4-4) (Formerly numbered S313A-S313B-S313C.) Lecture, four hours; discussion, one hour. Prerequisite: course 330. Course 331A is requisite to 331B, which is requisite to 331C. In-depth courses in teaching of Orff Schulwerk approach to music instruction for children. May be repeated for credit without limitation. S/U or letter grading.

331A. Level I (Beginning); 331B. Level II (Intermediate); 331C. Level III (Advanced).

331. Conducting for High School and College Band/Wind Ensemble Teachers. (2) (Formerly numbered S331.) Lecture, two and one half hours. Comprehensive view of current trends in band/wind ensemble programs, including conducting, educational techniques, instrumentation, and methodology. May be repeated for credit without limitation. S/U or letter grading.

334. Effective and Creative String Teaching. (2) Lecture, 24 hours. Comprehensive course for teachers of string classes and string orchestras at elementary, junior high, and high school levels. Topics include development of instructional material, historical and aesthetic considerations, in-class and in-service teaching of string classes and string orchestras at elementary, junior high, and high school levels. Examination of in-service training and discussion sessions. Offered in summer only. S/U or letter grading.

343L. Effective and Creative String Teaching Laboratory. (1) Laboratory, 12 hours. Exploration of string orchestra, ensemble, and chamber music literature appropriate for elementary, junior, high, and college levels. Examination of this literature in reading and discussion sessions. Offered in summer only. S/U or letter grading.

345. Symposium on Art of Choral Music. (2) (Formerly numbered S345.) Lecture, two and one half hours. Symposium for college, high school, and junior high school choral directors on development of prac-
460A-460V. Graduate Instrumental Studio. (6 each) Studio, one hour; performance laboratory/outside study, 15 hours. Limited to graduate performance students. Intensive study and preparation of musical literature in specialized field of conduct. May be repeated for credit. S/U or letter grading.

475. Master Class in Conducting. (6) Studio, three hours; outside study, 15 hours. Limited to graduate performance students. Intensive study and preparation of musical literature in specialized field of conducting. May be repeated for credit. S/U or letter grading.

480A. UCLA Chorale. (2) (Formerly numbered 480A.) Activity, four hours. Preparation: audition. Required for enrollment in course C185C. S/U or letter grading.

480B. Chamber Singers. (2) Activity, four hours. Preparation: audition. Required for enrollment in course C185C. S/U or letter grading.

480C. Opera Workshop. (2) Activity, six hours. Preparation: audition. Rehearsal and performance of scenes and complete operas, as well as repertoire, stage movement, and foreign language diction coaching. May be repeated for credit without limitation. May be concurrently scheduled with course C185C. S/U or letter grading.

480D. Symphony Orchestra. (2) (Formerly numbered 481B.) Activity, four hours. Preparation: audition. Required for enrollment in course C185C. S/U or letter grading.

485C. Philharmonia. (2) Activity, six hours. Preparation: audition. Group performance of symphonic orchestral literature, as well as orchestral accompaniment for operatic and major choral works. May be repeated for credit without limitation. May be concurrently scheduled with course C185D. S/U or letter grading.

486. Technology Seminar. (2) Seminar, two hours; laboratory, one hour; outside study, three hours. Introduction to departmental and campuswide technology resources, exploration of applicability of technology in education, and development of means of using technology to assess and document teaching competence. S/U grading.
Scope and Objectives

The Music Industry minor is an interdisciplinary and interdepartmental series of courses designed to (1) introduce students to a critical perspective on the formative effects the music industry and music technology has had on musical practices around the world, (2) prepare students for employment in the music industry, including marketing and sales, artist management and intellectual property, sound recording and audio technology, songwriting and record production, and (3) contribute to improved communication and interaction between UCLA, the music industry, and the musical life of Los Angeles.

Undergraduate Study

Music Industry Minor

The Music Industry minor is intended to provide students with an introduction to the history, theory, and practice of music as a calling and a business; and to provide opportunities for students to work with practitioners on real-world projects in the music industry.

To apply to the minor, transfer students must have completed a minimum of one term of residency at UCLA, and students admitted as freshman must have completed a minimum of three terms of residency at UCLA. Students must be in good academic standing with an overall grade-point average of at least 2.0.

In addition, students who are not enrolled in a major within the Herb Alpert School of Music must complete at least one performance or ensemble course selected from Ethnomusicology 91A through 912, Global Jazz Studies 176A through 176G, Music M90T, C185A through C186C prior to application to the minor. The performance requirement may also be fulfilled through successful completion of Music Industry 111 or through an equivalent music industry course by petition.

Required Courses (28 units): Music Industry 101, 195 (8 units), and five additional courses (20 units) selected from Ethnomusicology M128, M25, 30, M35, C100, 105, 117, C155, C184, Music C176, Musicoology 128, M137, 140, 164, 165, 177, 185, Music Industry 29, 55, 95, 102 through M181, M182, 188, 195, 197. A maximum of two lower-division courses may be counted toward the minor. Other UCLA upper-division courses may be applied to the minor by petition.

A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor.

With the exception of Music Industry 95 and 195 (mandatory P/NP grading), each minor course must be taken for a letter grade. Successful completion of the minor is indicated on the transcript and may be applied toward MA or MM degree requirements. May be repeated for credit. S/U or letter grading.

Upper-Division Courses

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

29. Music Documentary in History and Practice. (4) (Formerly numbered 109.) Lecture, three hours; discussion, one hour. General introduction to theory and practice of visual storytelling. Primary focus on screening and discussion of documentaries leading to development of critical perspective on the music industry, including marketing and sales, artist management and intellectual property, sound recording and audio technology, songwriting and record production, and consumption operate, and how basic music science from acoustics to brain biology to music perception affects how music is produced and heard. Letter grading.

55. Songwriters on Songwriting. (4) (Formerly numbered 195.) Lecture, three hours; discussion, one hour. With special focus on songwriting renaissance of rock era, examination of work of important songwriters of post-World War II generation (circa 1952–1994) and those they have influenced. Practical industry guidance from current and noteworthy practitioners. Coverage of songwriting, arrangement and record production, music publishing, and record business in 20th and 21st centuries. Guest music industry professionals demonstrate individual creative processes and discuss their paths to songwriting and their place in world of music. Course is not workshop or tutorial on how to write songs. (See course 112.) P/NP or letter grading.

70. Apprenticeship in Music Industry. (2 or 4) Tutorial, 10 hours. Students work with UCLA faculty or staff in production of live concert events, in UCLA recording studio, or as part of media production team led by UCLA faculty and staff. P/NP grading.

89. Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to lower-division lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

95. Introduction to Community or Corporate Internships in Music Industry. (4) Tutorial, eight hours. Entry-level community or corporate internship for Music Industry students who have completed 40 or fewer units. Internship in supervised setting in community agency or private business. Students meet on regular basis with instructor and provide periodic reports of their experience. P/NP grading.

99. Student Research Program. (1 to 2) Tutorial (supervised research or other scholarly work), three hours per week per unit. Entry-level research for lower-division students under guidance of faculty mentor. Students may apply toward honors credit for eligible students. Honors content noted on transcript. P/NP grading.

101. Seminar in Music Industry. (4) Seminar, four hours; outside study, eight hours. Required of Music Industry minors. Introduction to intellectual and theoretical frameworks that form Music Industry minor and that scholars of music and industry, who have developed to analyze, understand, and perhaps judge what happens out there, including how music business works in financial, legal, global, and artistic terms, how music technologies of recording, reproduction, and consumption operate, and how basic music science from acoustics to brain biology to music perception affects how music is produced and heard. Letter grading.

102. Music Industry Fundamentals. (4) Seminar, three hours; outside study, nine hours. Introduction to basic economics of creative industries, focusing on unique ways music works as industry in U.S. and abroad, how power has shifted but still is held in musical oligopolies, and where career opportunities for musicians and other industry professionals will be in next five to 10 years for students. Letter grading.

M103. Music and Brain. (4) (Formerly numbered 103J) Seminar, three hours; outside study, nine hours. Multidisciplinary approach to understanding brain mechanisms mediating music perception, performance, and cognition. Students will learn natural interest in music serves as springboard for learning basic concepts about how brain works. Focus on specific themes such as harmony perception, rhythm perception, emotion and meaning in music, and creativity. Designed to help students understand methodologies currently used to investigate brain-behavior correlates. Broad understanding of research topics in cognitive neuroscience, one of three main subdisciplines of neuroscience; introduction to fundamental principles in neurophysiology, psycho-physics, and neuroanatomy, whose basics form foundation for brain imaging, forensic practice, social
psychology research, and marketing research; and specific knowledge about brain mechanisms medi- ating music-related cognitive and emotional functions. Letter grading.

104A. Music and Law. (4) Seminar, three hours; outside study, nine hours. Fundamentals of American law as it applies to the entertainment business, with special attention to music and its use in film, television, and new media. Legal relationships in entertainment busi- ness and basic business practices. Exploration of legal and business aspects of working in entertainment field, from acquisition of rights and talent through production and distribution. Letter grading.

104B. Legal and Business Aspects of Sound Record- ings. (4) Seminar, four hours; outside study, six hours. Exploration of legal and business aspects of production and distribution of sound recordings. More detailed practical focus on legal as- pects of recording process itself, from initial assembly of material to final distribution and collection of royalties, with material covered also relevant to audio-visual recordings. Introductory presentation on contract, copyright, and trademark law as background to step-by-step process of securing agreements necessary for production and commercial distribution of recordings. Letter grading.

107A. Audio Technology for Musicians I. (4) Studio, four hours; outside study, eight hours. Introduction to basic acoustic principles, practical techniques, and working procedures for equipment used in contemporary music production, including microphones, mixers, recorders, synthesizers, and sequencers. Basic sound processing operations (equalization, compression, distortion, reverberation). Operating principles of most popular systems of music production software and hardware. Letter grading.

107B. Audio Technology for Musicians II. (4) Studio, four hours; outside study, eight hours. Enforced requi- site: course 107A. Examination of selected technological elements in greater depth than in course 107A, while also applied to more creative uses, especially in creative scenarios and applications. Basic familiarity with standard audio workstation software in use in music industry and introduction to foundational theoretical concepts in audio engineering, psychoacoustics, mixing, mastering, and sound recording. Develop- ment of critical listening skills through in-class and assigned listening. Letter grading.

108. Founding and Sustaining Performing Arts Or- ganizations. (4) Seminar, four hours. Examination of process of founding performing arts organizations, begin- ning with inspiration to do so, clarifying organiza- tions and practical considerations of becoming nonprofit corporations; issues of funding, press relations, finding appropriate venues, developing audience; me- chanics, legal and routine, of running arts businesses; establishing other organizations in field; issues of making and distributing recordings. Students create on paper one performing arts organi- zation, including developing mission statement, pre- paring bylaws, and writing sample grant proposals. Letter grading.


111. Rock/Pop Studio Ensemble. (4) Studio, four hours; outside study, four hours. Performance-based introduction to songwriting, popular music styles, forms, and com- petencies through immersion in studio performance techniques. Students play in groups to develop en- semble, create material, and produce recordings. P/ NP or letter grading.

112A. Introduction to Songwriting. (4) Formerly numbered 112.) Seminar, four hours; outside study, eight hours. Learning and employment of craft of songwriting. Examination, analysis, and implementa- tion of song structure, lyric and melody writing, ar- ranging, orchestrating, and recording techniques. Evolution of songwriting in modern society since ad- vent of phonograph player/radio; how songs and so- ciety affect and reflect one another; how this has in- formed songs and songwriters. Letter grading.

112B. Songwriter’s Workshop. (4) Seminar, four hours; outside study, eight hours. Enrollment by con- sent of instructor. Workshop in contemporary song- writing practices for intermediate to advanced song- writer. Emphasis on collaboration, flexibility, and working within the context of music writing. Letter grading.


115. The Art of Music Production. (4) Lecture, three hours; studio, two hours. Exploration of techniques, methods, and process of music production and larger issues in art of making music. Students learn how to foster and capture performance and emotion in music through variety of methods and tools, including artistic direction in studio and choices made in sound, ar- rangement, and application of technology. Letter grading.

122. Internet Marketing and Branding for Musi- cians. (4) Formerly numbered 102.) Seminar, four hours; outside study, eight hours. Requisites: courses 101D, 104A, or by permission of instructor. Study driven by project-based work of current online envi- ronments for musicians, organizations, and venues. Students dive into best practices of digital marketing in the music industry, focusing on how to navigate around social media, SEO, online, and engaging with right communities of prac- tice to build their own connections and online portfolio of collaborators. Letter grading.

124. Music Industry Entrepreneurship. (4) Seminar, four hours. Principles of entrepreneurship and funda- mental business strategies approached through case studies and project-based group assignments. Stu- dents develop business plans, pitch them, and build out infrastructure for startups that focus on tech- nology and innovation in music industry. Students are encouraged to make use of resources at MusicBiz, MEIEA, and smuap.uc.edu. Letter grading.

131. DIY Punk as Organizational Practice. (4) Sem- inar, three hours. Recommended requisite or corequi- site: Musicology 13. Do it yourself (DIY) as practical al- ternative mode of organization for social justice activ- ists and nonprofit arts collectives. Ethical issues in capitalism, labor issues, politics. How to work with gender, class, race, and orientation. Students inter- face with existing radical social justice/art organiza- tions in Los Angeles area, and strive to facilitate real change. Letter grading.

135. Forensic Musicology. (4) Formerly numbered 181.) (Same as Musicology CM181.) Seminar, three hours. Survey of critical issues and recent develop- ments in field of forensic musicology—application of musical analysis to law of music copyright. Instructors include professionals in music industry. Study of funda- mentals of music analysis and copyright law, review of key music copyright infringement cases from both legal and musicological perspectives, outlining of pro- cedural aspects of copyright case, and defining of working relationship between attorney and musicolo- gist. Tutorial, six to 12 hours. Limited to juniors/seniors in Music Industry minor. Preference given to juniors/seniors in Music Industry minor with minimum cumulative 3.0 grade-point aver- age. Internship in supervised setting in community agency or private business. Students meet on regular basis with instructor and provide periodic reports of their experience. May be repeated for maximum of 8 units. Individual contract with supervising faculty member required. P/NP grading.

197. Individual Studies in Music Industry and Tech- nology. (2 to 4) Tutorial, six to 12 hours. Limited to ju- niors/seniors in Music Industry minor with minimum cumulative 3.0 grade-point average. Individual inten- sive study in music industry and technology, with scheduled meetings to be arranged between faculty member and student. Tangible evidence of mastery of subject matter resulting in research project/paper re- quired. May be repeated for maximum of 8 units. Indi- vidual contract with supervising faculty member re- quired. Letter grading.
other popular musics. The department is aligned with the departments of Ethnomusicology and Music, and shares curriculum with the free-standing minor in Music Industry. It aspires to promote productive collaboration between performance and scholarship, a cross-cultural global understanding of the art of music, and preparatory training for a broad range of careers in music and the music industry after students graduate.

The department offers two undergraduate degrees. The BA in Musicology appeals to undergraduate students with musical backgrounds whose interests and principal career goals lie in areas other than professional performance. This undergraduate program prepares students for graduate programs in music and related fields and offers training within the broader context of the humanities.

The BA in Music History and Industry is not a technical or business degree; it is a liberal arts degree in musicology whose subject is the music industry, combining the focus on music as an art form with practical training and experiential learning based in the music industry. It includes courses that help students develop their skills in popular music creation and production as well as practical skills appropriate to the fiscal, entrepreneurial, and legal needs of the contemporary music world. A required internship in the Los Angeles music industry is a distinctive feature.

The graduate program in Musicology offers courses leading to the MA and PhD degrees. It is designed to equip students to pursue careers not only in teaching but also in other areas that require bibliographical skills and training in research methodologies. The department offers teaching and research assistantships each year for qualified students.

Undergraduate Study

The Musicology and Music History and Industry majors are designated capstone majors. Undergraduate students must complete a senior thesis that demonstrates the skills and expertise they have acquired in earlier coursework. Musicology students are expected to conceive and execute a project that identifies and engages with a problem within a specialized topic, identify and analyze appropriate primary sources both textual and musical, and have a working knowledge of scholarly discourse relative to a specialized topic. Music History and Industry students are expected to conceive and execute a project that (a) identifies an issue, problem, or opportunity in the music industry and engages with it practically and critically, or (b) brings to fruition a substantial creative project in contemporary music with tangible results. While an extended essay is the default expectation for a completed project, students are encouraged to seek alternative formats, such as a lecture-recital, business or marketing plans, set of lesson plans, website, studio sound recording, or video/audio presentation. Students discuss and critique the work of their peers and present their work to other students and, if they choose, to the public as part of a student-organized live event and conference.

Musicology BA Capstone Major

Learning Outcomes

The Musicology major has the following learning outcomes:

- Demonstrated specific skills and expertise, including research, analysis, writing, and general knowledge of music and music history
- Identification and analysis of appropriate primary sources and musical scores
- Conception and execution of a project that proposes and supports an original argument about a specialized topic
- Working knowledge of scholarly discourse relative to a specialized topic
- Engagement with peers through presentation, discussion, and critique of student work

Admission

The Musicology program assumes that students have some musical background before entering UCLA. Although auditions are not required, prospective majors should be sufficiently competent on an instrument or in voice to participate in a performance group, as required by the program.

Preparation for the Major

Required: Musicology 125A, 125B, 125C, 126, Music 20A, 20B, 20C, and 6 units (three terms) of performance organizations selected from Ethnomusicology 91A through 91Z, Music C185A through C186A, Musicology 28A through 28C, CMR90T, or Music Industry 111; one lower-division humanities elective (minimum of 4 units; choose from the list of approved courses held in the school Office of Student Affairs). Enrollment in Musicology M6A, M6B, M6C and Music 20A, 20B, 20C requires taking the Music Theory Placement Examination administered by the Music Department.

Transfer Students

Transfer applicants to the Musicology major with 90 or more units must complete one year of music theory prior to admission to UCLA. Experience in music performance is strongly recommended. Transfer students are required to take Musicology 12W at UCLA. Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

The Major

Required: Musicology 125A, 125B, 125C, 126, 127, 128 (in a given year, the department may designate individual Musicology seminars in the range 160-185, 188, or 191 as equivalent to 126 and 127); one additional upper-division elective, chosen from Musicology 160 through 185, 191A through 191F, 195 (if supervised by Musicology faculty), or an equivalent seminar course in ethnomusicology, music, or music industry (see the list of approved courses held in the school Office of Student Affairs; enrollments may be limited—check with the department or instructor); and the department capstone sequence, Musicology 187A, 187B, 187C.

Each course applied toward the major must be taken for a letter grade (courses offered only on a P/NP grading basis are acceptable).

Honors Program

The honors program is designed for Musicology majors who wish to carry out an extended independent research project that culminates in a departmental honors thesis of approximately 30 pages. The program gives qualified students the opportunity to work closely with individual professors on an in-depth supervised research and writing project. All junior and senior Musicology majors who have completed a minimum of four upper-division musicology courses with a departmental grade-point average of 3.7 or better and an overall GPA of 3.0 or better are eligible to apply. Normally, the thesis must be completed during fall quarter of the senior year.

To qualify for graduation with departmental honors, students must (1) complete all requirements for the major, (2) have a cumulative grade-point average of 3.7 or better in upper-division courses in the department and an overall GPA of 3.0 or better, and (3) complete at least one term of Musicology 198 (2 units) with a grade of A– or better on the resulting thesis.

To qualify for graduation with departmental highest honors, students must (1) complete all requirements for the major, (2) have a cumulative GPA of 3.9 or better in upper-division courses in the department and an overall GPA of 3.65 or better, and (3) complete at least one term of Musicology 198 (2 units) with a grade of A or better on the resulting thesis.

Music History and Industry BA Capstone Major

Learning Outcomes

The Music History and Industry major has the following learning outcomes:

- Development of basic musicianship and music literacy and fluency in music theory to accurately and efficiently communicate about musical concepts across multiple repertoires in popular music; basic competence with music technology
- Demonstrated general knowledge of the histories and repertories of Western European and US—American traditional, popular, and classical musics, as well as the influence of other world traditions
- Engagement with live ensemble performance in at least one area of music
- Working knowledge of scholarly and critical discourse relative to music history and the music industry
- Conception and execution of project that proposes and supports an original argument about a specialized topic or addresses a specific cultural question or presents and analyzes a case study of actual practice in the music industry
Admission

The Music History and Industry major assumes that students have some musical background before entering UCLA, although Western art music is not privileged. Auditions are not required, but prospective majors should be sufficiently competent on an instrument, in performance, or in voice to participate in a performance group, as required by the program.

Preparation for the Major

Required: Music 20A, 20B, 20C; Musicology M6A, M6B, M6C, 12W; and 4 units (two terms) of performance organizations selected from Ethnomusicology 91A through 91Z, Music C185A through C185D, C185F through C186A, Musicology 28A through 28C, CM190T, or Music Industry 111; one musicology or music industry elective, preferably from lower-division courses (minimum of 4 units). Enrollment in Music 20A, 20B, 20C, and Musicology M6A, M6B, M6C requires taking the Music Theory Placement Examination administered by the Music Department or an equivalent assessment administered by the Musicology Department.

Transfer Students

Transfer applicants to the Music History and Industry major with 90 or more units must complete one year of music theory prior to admission to UCLA. Experience in group music performance (any genre) is strongly recommended. Transfer students are required to take Musicology 12W at UCLA.

Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

The Major

Required: Musicology 125A, 125B, 125C, 128; Music Industry 101, 102 or 112A or 112B, 195, supervised by a member of the Music Industry minor faculty, two upper-division music industry elective courses; and the Music History and Industry capstone sequence, Musicology 184A, 184B, 184C.

Each course applied toward the major must be taken for a letter grade (courses offered only on a P/NP grading basis are acceptable).

Musicology Minor

The Musicology minor provides undergraduates with an overview of music history and the study of music. Students may select from a wide variety of undergraduate courses that range through the history of European and American music.

To enter the minor, students must have an overall grade-point average of 2.0 or better and file a petition with the school’s Office of Student Affairs in 1642 Schoenberg Music Building. For more information, see the minor website.

Required Lower-Division Courses (10 units): Two musicology courses with grades of C or better.

Required Upper-Division Courses (21 to 25 units):

- Musicology 101, one seminar course from 160 through 185 or 191A through 191P, one additional upper-division musicology course, and two additional upper-division ethnomusicology, music, musicology, or music industry courses (minimum 8 units). Enrollment in some courses may be limited; check with the department or instructor.
- A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor.

Each minor course must be taken for a letter grade (courses offered only on a P/NP grading basis are acceptable), and students must have an overall grade-point average of 2.0 or better in the minor.

Successful completion of the minor is indicated on the transcript and diploma.

Graduate Study

Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Division website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Graduate Degrees

The Department of Musicology offers Master of Arts (MA), Candidate in Philosophy (CPhil), and Doctor of Philosophy (PhD) degrees in Musicology.

Musicology

Lower-Division Courses

3. Introduction to Classical Music. (5) (Formerly numbered Music History 3.) Lecture, four hours; discussion, one hour. Survey of music of Western classical tradition, with emphasis on historical context, musical meanings, and creation of tradition itself. P/ NP or letter grading.

5. History of Rock and Roll. (5) (Formerly numbered Music History 4.) Lecture, four hours; discussion, one hour. Analysis of forms, practices, and meanings of rock and roll music, broadly conceived, from its origin to present. Emphasis on how this music has reflected and influenced changes in sexual, racial, and class identities and attitudes. Credit for both courses 5 and 185 not allowed. Letter grading.

M6A-M6B-M6C. Introduction to Musicanship. (2-2-2) (Formerly numbered Music History 6A-M6B-M6C.) (Same as Ethnomusicology M6A-M6B-M6C and Music M6A-M6B-M6C.) Laboratory, four hours. Preparation: placement examination. Course M6A is enforced requisite to M6B, which is enforced requisite to M6C. Students must receive grade of C- or better to proceed to next course in sequence. Introduction to musicanship through in-depth exploration of basic common musical elements and training in aural recognition, sight singing, dictation, and keyboard skills. Focus on topics such as tonal and modal harmony, rhythm, improvisation, composition, notation, and ear training to prepare students for later theory courses, participation in music ensembles, advanced study in music, and professional careers. Letter grading.

7. Film and Music. (5) (Formerly numbered Music History 7.) Lecture, four hours; discussion, one hour. History of music and cinema, particularly ways music is used to produce meanings in conjunction with visual image. Credit for both courses 7 and 177 not allowed. P/NP or letter grading.

8. History of Electronic Dance Music. (5) (Formerly numbered Music History 8.) Lecture, four hours; discussion, one hour. Survey of electrified dance music from its origins in 1960s pop and soul to present, covering disco, house, techno, ambient, rave, and jungle. Emphasis on interaction of technology, marketing, art, culture, and social image. Credit for both courses 8 and 120 not allowed. P/NP or letter grading.

9. American Popular Song. (5) (Formerly numbered Music History 9.) Lecture, four hours; discussion, one hour. American popular music before advent of rock and roll in 1950s, with special emphasis on song traditions of Tin Pan Alley. P/ NP or letter grading.

12W. Writing about Music. (5) (Formerly numbered Music History 12W.) Lecture, four hours; laboratory, one hour. Enforced requisite: English Composition 3 or 3H or English as a Second Language 36. Emphasis on learning specific skills, incorporating technical description, historical contextualization, subjective reaction, and certain stylistic conventions necessary in writing about music. Satisfies Writing II requirement. Letter grading.

13. Punk: Music, History, Subculture. (5) (Formerly numbered Music History 13.) Lecture, four hours; discussion, one hour. Developments in punk music in their historical and subcultural contexts. Survey of prepunk and musical antecedents in 1960s, rise of punk in 1970s, and tracing of its expressive trajectories to present day. P/NP or letter grading.

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.


35. Introduction to Opera. (5) (Formerly numbered Music History 35.) Lecture, four hours; discussion, one hour. Exploration of history of opera from its origins in Florentine Camerata in Italy in early 17th century, through ages of Enlightenment and Romanticism, and ending with modern era of early 20th century. History of opera, biography of composers and singers, operatic conventions, dramaturgy, plot, stagings, hermeneutics of opera, and musical style, with focus on learning appreciation of music of opera within rich context of its compelling history. P/NP or letter grading.

60. American Musical. (5) (Formerly numbered Music History 60.) Lecture, four hours; discussion, 90 minutes. Survey of American musical in 20th century, beginning with its roots in opera, vaudeville, and Gilbert and Sullivan, and focusing on its connections to politics, technology, film, opera, and variety of popular musical styles, including Tin Pan Alley, jazz, and rock. Credit for both courses 60 and 160 not allowed. P/NP or letter grading.

61. Music in Los Angeles. (5) (Formerly numbered Music History 61.) Lecture, four hours; discussion, one hour. Exploration of history of music in Los Angeles. From Spanish missions and history of Los Angeles to greater emphasis on music in 20th century, with special focus on European émigrés, internment and postwar history of Japanese American community,
Chicano and Mexican American music to present, African American traditions including jazz on Central Avenue, 1960s Laurel Canyon and rock scene, and more recent history that includes developments in punk and hip-hop, P/NP or letter grading.

62. Mozart. (Formerly numbered Music History 62.) Lecture, four hours; discussion, one hour. Designed for students who do not read music. Life, works, and mythology of Wolfgang Amadeus Mozart, in context of both his age and our own. Credit for both courses 62 and 162 not allowed. P/NP or letter grading.

63. Bach. (Formerly numbered Music History 63.) Lecture, four hours; discussion, one hour. Designed for undergraduates and transfer students. Life of Sebastian Bach. Credit for both courses 63 and 163 not allowed. P/NP or letter grading.

64. Motown and Soul: African American Popular Music of 1960s. (Formerly numbered Music History 64.) Lecture, four hours; discussion, one hour. Survey of developments in post-World War II African American popular music, with special attention to musical achievements of Motown Records, Stax, and other rhythm and blues and soul music producers. Credit for both courses 64 and 164 not allowed. P/NP or letter grading.

65. Blues in America. (Formerly numbered Music History 65.) Lecture, six hours; discussion, one hour. History of blues, both as specific genre and as range of techniques and approaches that have been at core of African American music and culture, from 19th-century roots to present. Exploration of commonalities accepted blues mainstream exemplified by figures like Bessie Smith, Robert Johnson, and B.B. King, but also central role blues has played in jazz, folk, country, and other genres. While following evolution of music through 20th century, examination of how blues has served as metaphor for African American musical culture under Nazi regime (1933-45), focusing on music of prisoners and creators played in creation of artistic hubs in campus throughout Holocaust. Study of some of newest developments in post-World War II African American music folk game traditions, highlights complex musical literacies and notion of social contract that musical texts. Exposure to kinds of activities, philosophies, and styles of scholarship that continue to shape field of musicology. Letter grading.

66. Getting Medieval. (Formerly numbered Music History 66.) Lecture, four hours; discussion, one hour. Music of Jews is diverse. With history of several thousand years and series of developments in modernity, music in Jewish life covers variety of styles found in many contexts. Exploration of music of Jews within last 100 years, within context of music of Jews in America and Israel. Examination of music in Israel, with focus on songs of land of Israel, Israeli rock, and Muzika Mizrachit (Middle Eastern popular music). P/with focus on songs of land of Israel, Israeli rock, and America and Israel. Examination of music in Israel, thousand years and series of developments in modernity.
of church and court patronage, through selected topics, repertoires, and analytical techniques. Letter grading.

125B. Music, History, and Culture: Era of Empires and Marketplaces. (5) (Formerly numbered Music History 125B.) Lecture, four hours; discussion, one hour. Preparation: ability to read music and engage in melodic, harmonic, and formal analysis. Enforced prerequisite: attendance, but not enrollment, in course 62 lecture. Limited to Musicology majors and minors. Intensive discussion of selected pieces by Mozart and Beethoven, with emphasis on understanding of his contributions to musical culture of Enlightenment, as well as to contemporary culture. Credit for both courses 62 and 162 not allowed. Letter grading.

163. Blues and Individual Expression. (5) (Formerly numbered Music History 163.) Seminar, two hours. Enforced corequisite: attendance, but not enrollment, in course 63 lecture. Limited to Musicology majors and minors. Examination of the historical context of blues, with an emphasis on the role of blues in individuals' lives and cultures. Credit for both courses 63 and 163 not allowed. Letter grading.

162. Selected Topics in Music of Mozart. (5) (Formerly numbered Music History 162.) Seminar, two hours. Preparation: ability to read music and engage in melodic, harmonic, and formal analysis. Enforced prerequisite: attendance, but not enrollment, in course 62 lecture. Limited to Musicology majors and minors. Intensive discussion of selected pieces by Mozart and Beethoven, with emphasis on understanding of his contributions to musical culture of Enlightenment, as well as to contemporary culture. Credit for both courses 62 and 162 not allowed. Letter grading.

172. Music, Sound, and Structure. (5) (Formerly numbered Music History 127.) Lecture, four hours; discussion, one hour. Requisite or corequisite: M6A. Designed to supplement broad historical survey in Musicology 125 series by focusing on interlocking questions of how cultures make music, and how music makes culture. Letter grading.

176. Music, Sound, and Structure. (5) (Formerly numbered Music History 127.) Lecture, four hours; discussion, one hour. Requisite or corequisite: M6A. Designed to supplement broad historical survey in Musicology 125 series by focusing on interlocking questions of musical structure and meaning. Letter grading.

128. History of Popular Music. (5) (Formerly numbered Music History 128.) Lecture, four hours; discussion, one hour. Requisite or corequisite: M6A. Introduction to study of popular music through American history, with emphasis on music of Americas, Afro-diasporic music, and socioeconomic structure of music in modern and postmodern eras, through selected topics, repertoires, and analytical techniques. Letter grading.

135A-135B-135C. History of Opera. (5—5—5) (Formerly numbered Music History 135A-135B-135C.) Lecture, four hours; discussion, one hour. Enforced prerequisite: course M20B (may be taken concurrently), 125B. Course 135A is requisite to 135B, which is requisite to 135C. Students must receive grade of C or better to proceed to next course in sequence. Introduction to history, culture, and structure of Western music, in modern and postmodern eras, through selected topics, repertoires, and analytical techniques. Letter grading.

135A. Baroque and Classical Periods; 135B. Romantic Period; 135C. 20th Century. M136. Music and Gender. (5) (Formerly numbered Music History 136.) Seminar, two hours. Enforced corequisite: attendance, but not enrollment, in course 66 lecture. Exploration of ways in which specific approaches and attitudes to past shape music history, composition, and performance, with special focus on music of women in traditionally male-dominated fields, including analyses of audio recordings and text-based critiques. Credit for both courses 66 and 166 not allowed. Letter grading.

137. Lesbian, Gay, Bisexual, Transgender, and Queer: Perpectives in Pop Music. (5) (Formerly numbered Music History 137.) Lecture, four hours; discussion, one hour. Survey of English-language popular music in 20th century, with focus on lesbians, gay men, and members of other sexual minorities as creators, performers, and audience members. Letter grading.

140. Music, Media, and Consumer Society. (4) (Formerly numbered Music History 140.) Lecture, four hours. Consideration of impact of recording technologies (gramophone, tape recorder, Walkman, sampler), broadcast media (radio, television, MTV, Internet), and global cultural flows on music and society. Emphasis on way we consume and are consumed by music. How music functions and malfunctions on records, under movies, behind ads, and in semiotic fabric of everyday life. Letter grading.

160. Selected Topics in American Musical. (5) (Formerly numbered Music History 160.) Seminar, 90 minutes. Enforced corequisite: attendance, but not enrollment, in course 60 lecture. Exploration of connections and disconnects between American musical on stage and in America, film music, and popular music. Credit for both courses 60 and 160 not allowed. Letter grading.

161. Selected Topics in Film and Music. (5) (Formerly numbered Music History 161.) Seminar, two hours. Enforced prerequisite: attendance, but not enrollment, in course 61 lecture. Limited to Musicology majors and minors. In-depth exploration of issues in analysis and criticism of music in film. Credit for both courses 61 and 161 not allowed. Letter grading.


174. Selected Topics in Sacred Music. (5) (Formerly numbered Music History 174.) Seminar, two hours. Enforced prerequisite: attendance, but not enrollment, in course 64 lecture. Limited to Musicology majors and minors. Examination of Bach's music in greater depth. Credit for both courses 64 and 164 not allowed. Letter grading.

175. Selected Topics in African American Popular Music of 1960s. (5) (Formerly numbered Music History 175.) Seminar, two hours. Enforced corequisite: attendance, but not enrollment, in course 65 lecture. Intensive discussion of developments in post-World War II African American popular music, with special attention to creation of new musical forms, such as soul, and to musical engagement in civil rights movements. Letter grading.

176. Blues and Individual Expression. (5) (Formerly numbered Music History 165.) Seminar, two hours. Enforced corequisite: attendance, but not enrollment, in course 66 lecture. Exploration of ways in which specific approaches and attitudes to past shape music history, composition, and performance, with special focus on music of women in traditionally male-dominated fields, including analyses of audio recordings and text-based critiques. Credit for both courses 66 and 166 not allowed. Letter grading.

177. Selected Topics in Film and Music. (Formerly numbered Music History 177.) Seminar, two hours. Enforced corequisite: attendance, but not enrollment, in course 61 lecture. Limited to Musicology majors and minors. In-depth exploration of issues in analysis and criticism of music in film. Credit for both courses 61 and 177 not allowed. Letter grading.

184A. Devel-
188SC. Individual Studies for USIE Facilitators. (2) Tutorial, to be arranged. Enforced requisite: course 188SB. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor while facilitating USIE 883 course. Individual contract with faculty mentor required. May not be repeated. Letter grading.

189. Advanced Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to undergraduate lecture course. Exploration of topics in greater depth and requires additional reading, paper, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

189HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to upper-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

190. Research Colloquia in Music History. (2) Formerly numbered Music History 190.) Seminar, two hours. Designed for senior Musicology majors. Designed to bring together students undertaking self-directed research in a formalized research seminar setting with one or more faculty members to complete their capstone projects and share their work with their peers, as well as act as a model for the course. Course members expected to present their work and to discuss and help critique work of others at similar stage of development. They may elect to show their work before academic publics (e.g., through organizing one conference or one special publication). Letter grading.


191A. Middle Ages; 191B. Renaissance; 191C. Baroque; 191D. Classic; 191E. Romantic; 191F. 20th Century; 191G. Other Topics; 191P. Performance Practice. Practical issues in performance practice, specific questions of how musical performance intersects with cultural and political performance, and/or general issues of theory of performance in Western music practice; preparation for undertaking research in theoretical and historical context selected by instructor.

193C. Music History Journal Club Seminars for Majors. (2) Formerly numbered Music History 193C.) Seminar, two hours. Limited to Musicology majors. Introduction to discipline through discussions of readings and lectures on current topics in field, with focus especially on its practice at UCLA, and addressing research methodologies and development of bibliographic control. Normally taken in junior year. P/NP grading.

193D. Music History Performance/Analysis Seminars for Majors. (2) Formerly numbered Music History 193D.) Seminar, two hours. Recommended requisite: course 193C.) Limited to Musicology majors. Introduction to how music historians engage with issues of musical performance, and of how historical concerns, theoretical issues, and methodologies can inform music as practice, especially as it is performed, recorded, listened to, danced to, and otherwise consumed. Continued attention to issues of bibliographic control. Normally taken in senior year. P/NP grading.

195. Individual Studies in Music History. (2) Formerly numbered Music History 195.) Tutorial, one hour; fieldwork, 10 hours. Limited to juniors/seniors. Internship in supervised setting in community agency or business as directed by music or music history. Students meet on regular basis with instructor and provide periodic reports of their experiences and final project. May be repeated for credit. Individual contract with supervising faculty member required. P/NP grading.

197. Individual Studies in Music History. (2 to 4) Formerly numbered Music History 197.) Tutorial, two hours. Limited to juniors/seniors. Individual intensive study, with scheduled meetings to be arranged between faculty member and student. Assigned reading and textbook. May be repeated for credit. Letter requirement. May be repeated for credit. Individual contract required. P/NP or letter grading.

198. Honors Research in Music History. (2 to 4) Formerly numbered Music History 198.) Tutorial, two hours. Preparation: completion of minimum of four upper-division music history courses with departmental grade-point average of 3.5 or better and over 12.0 GPA. Limited to junior Musicology majors. One to two term independent research project under supervision of appropriate faculty member, culminating in department honors thesis of approximately 25 pages. May be repeated for credit. Individual contract required. P/NP or letter grading.

199. Directed Research in Music History. (1 to 4) Formerly numbered Music History 199.) Tutorial, one hour. Preparation: 3.0 grade-point average. Limited to junior Musicology majors. Directed research under guidance of faculty mentor. Submitting paper or project required. May be repeated for maximum of 8 units. Individual contract required. P/NP or letter grading.

Graduate Courses

200A. Introduction to Music Scholarship. (6) Seminar, three hours. Designed for graduate musicology, ethnomusicology, and music students. Introduction to history of different fields of music scholarship (with strong emphasis on unexplored or neglected debates) in those fields. Practical tools for research, logic and structure of arguments, evidence, critical thinking and critique, historiography, rhetoric and voice, and archiving and cataloguing. Introduction to practical written forms such as abstract, grant proposal, paper/book proposal, and review. Letter grading.

200B. Critical, Cultural, and Social Theory. (6) Seminar, three hours. Designed for graduate musicology, ethnomusicology, and music students. Introduction to issues surrounding music as social, cultural, and historical practice, with strong emphasis on critical, cultural, and social theory. May include introduction to social theory, materialist theories of culture, postcolonialism, critical theory, or overview of cultural theory or of group of theories selected by instructor, including feminism, psychoanalytic, poststructuralism, gender, race, and sexuality studies, lesbian, gay, bisexual, transgender, and queer studies, discourses on. Introduction to set body of theory in its relation to study of music. Letter grading.

200C. Music Aesthetics, Analysis, and Philosophy. (6) Seminar, three hours. Designed for graduate musicology, ethnomusicology, and music students. Exploration of selected philosophical, aesthetic, and/or analytical perspectives on music to gain insight into selected analytical and philosophical approaches to phenomenon of music and to acquire skills in analyzing and interpreting variety of repertoires. Letter grading.

M201. Repertory and Analysis. (2) Seminar, five hours. Enforced requisite: course M200.) Exploration of defined repertory through readings and analysis. Specific topics vary. May be repeated for credit. S/U grading.

245. Seminar: Analytical/Repertoire Topics. (4) Seminar, tutorial, three hours. Designed for graduate musicology students. Coverage of analytical topics that vary from year to year. May be repeated for credit. Meets with course 246; concurrent enrollment in both courses not allowed. S/U grading.

246. Seminar: Special Topics in Musicology. (4) Seminar, three hours. Exploration of topics in musicology through a variety of approaches that may include historical, theoretical, or analytical approaches to objects within musicology. Topics announced in advance. May be repeated for credit. S/U grading.

250. Seminar: Theoretical Topics. (4) Seminar, three hours. Designed for graduate musicology students. Coverage of theoretical topics that vary from year to year. May be repeated for credit. Meets with course 255; concurrent enrollment in both courses not allowed. Letter grading.

251. Audit Seminar: Theoretical Topics. (2) Seminar, three hours. Requires or corequisite: course 250A. Specific topics vary from year to year. May not be applied toward MA or PhD degree requirements. May be repeated for credit. Meets with course 255; concurrent enrollment in both courses not allowed. S/U grading.

255. Seminar: Historical Topics. (4) Seminar, three hours. Designed for graduate musicology students. Coverage of historical topics that vary from year to year. May be repeated for credit. Meets with course 256; concurrent enrollment in both courses not allowed. Letter grading.

256. Seminar: Mapping Sonic Urban Geography of Los Angeles in 1940s. (2) Seminar, three hours. Limited to departmental graduate students and those in Urban Humanities Certificate Program. Exploration of methodologies and conceptual frameworks for mapping sonic urban geography of Los Angeles in 1940s. In-depth critical discussion of current theories of music and space and of most recently developed methodologies for undertaking ethnographic or anthropological study of sound recording and mapping soundscapes. May not be applied toward MA or PhD degree requirements. May be repeated for credit. Meets with course 260; concurrent enrollment in both courses not allowed. S/U grading.

260. Mapping Sonic Urban Geography of Los Angeles in 1940s. (4) Seminar, three hours. Limited to departmental graduate students and those in Urban Humanities Certificate Program. Exploration of methodologies and conceptual frameworks for mapping sonic urban geography of Los Angeles in 1940s. In-depth critical discussion of current theories of music and space and of most recently developed methodologies for undertaking ethnographic or anthropological study of sound recording and mapping soundscapes. May not be applied toward MA or PhD degree requirements. May be repeated for credit. Meets with course 260; concurrent enrollment in both courses not allowed. S/U grading.

271. Topics in Performance Practice. (4) Seminar, three hours. Designed for graduate students. Investigation of primary source readings in performance practices across history of Western music; analytical reports and practical applications in class demonstrations. May be repeated for credit. Letter grading.

281. Forensic Musicology. (4) Seminar, three hours. Survey of critical issues and recent developments in field of forensic musicology—application of musical analysis to law of music copyright. Instructors include professionals in music industry. Study of fundamentals of music analysis and copyright law, review of key music copyright infringement cases from both legal and musicological perspectives, outlining of proccedural aspects of copyright case, and definition of working relationship between attorney and musicologist. Concurrently scheduled with course CM181. Letter grading.

CM282. Music Industry. (4) Seminar, three hours. Designed as Ethnomusicology CM282 and Music CM282.) Lecture, four hours; discussion, one hour; outside study, seven hours. Limited to Ethnomusicology, Music, and Musicology majors. Examination of influence of music industry on way music is created, listened to, evaluated, and used today. Historical approach taken, beginning with music published in 18th century
and continuing through development of audio recordings to MTV and popular music today. Concurrently scheduled with course CM186, Letter grading.

291. Teaching Western Musical Canon. (1) Seminar, three hours. Workshop series designed to prepare graduate musicology students to teach Western musical canon at undergraduate level. May be repeated for credit. S/U grading.

296. Research Topics in Musicology. (2 to 4) Seminar, two to four hours. Preparation: consultation with instructor. Designed for graduate musicology students. Advanced study and analysis of current topics in musicology. Discussion of current research and literature in research specialty of faculty member teaching course. May be repeated for credit. S/U grading.

298. Seminar: Research Methods. (2) Seminar, two hours. Limited to second-year graduate musicology students and students with master's degrees. Development of advanced knowledge and bibliographic control in three historically separate areas of musicological specialization. May be repeated for credit. S/U grading.

299. Dissertation Research Colloquium. (2) Seminar, to be arranged. Preparation: apprentice personnel employment as teaching assistant, associate, or fellow. Teaching apprenticeship under active guidance and supervision of regular faculty member responsible for curriculum and instruction at UCLA. May be repeated for credit. S/U grading.

C490T. Early Music Ensemble. (4) Activity, four hours. Preparation: audition. Group performance of Western vocal and instrumental music from historical periods prior to 1800. Early instruments may be used at instructor’s discretion. May be repeated for credit without limitation. May be concurrently scheduled with course CM190T. S/U or letter grading.

495. Introductory Practicum for Teaching Apprentices in Musicology. (4) Seminar, three hours. Preparation: appointment as teaching apprentice in Music or Musicology Department. Required of all new teaching apprentices. Special course dealing with problems and practices of teaching music at college level. May not be applied toward degree requirements. S/U grading.

496. Directed Individual Studies in Musicology. (2, 4, or 6) Tutorial, to be arranged. Limited to graduate students. S/U or letter grading.

597. Preparation for MA Comprehensive Examination or PhD Qualifying Examinations. (2 or 4) Tutorial, to be arranged. Preparation: completion of all MA or PhD course and language requirements. Limited to graduate students. S/U grading.

599. Guidance of PhD Dissertation. (4, 8, or 12) Tutorial, to be arranged. Preparation: advancement to PhD candidacy. Limited to graduate students. May be repeated for credit. S/U grading.

**NAVAL SCIENCE — NAVY ROTC**

College of Letters and Science

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Scope and Objectives

In accordance with the National Defense Act of 1920 and with the concurrence of the Regents of the University of California, a unit of the Army Senior Division Reserve Officer Training Corps (ROTC) was established on the Los Angeles campus in July 1920. Naval and Air Force units were established in 1938 and 1949 respectively.

This voluntary training in the Naval Reserve Officer Training Corps (NROTC) program allows students to qualify for an officer’s commission in the Navy or Marine Corps while completing their college education. The NROTC curricula are not considered academic majors, but NROTC courses may be taken as free electives and applied toward the total course requirements of a major. For students contracted in the Naval Science Department, 26 units of naval science credit may be applied toward the requirements for the bachelor’s degree.

All three ROTC departments offer voluntary four- and three-year programs for freshmen and sophomores. The Army and Navy/Marine Corps also offer a two-year program for current and transfer students. All have leadership laboratories that teach leadership and management skills.

Active duty obligation following commissioning varies depending on branch of service and designated career field or occupational specialty.

**Scholarships**

NROTC scholarships are awarded on a competitive basis to U.S. citizens regardless of parents’ income. Scholarships cover tuition, a book allowance, fees, and a tax-free monetary allowance between $250 and $400 per month during the academic year. Applications for scholarships may be obtained online or by calling 800-628-7682. Completed applications should be submitted no later than December 31 for the fall term. Two or three-year scholarship applications may be obtained from the Naval Science Department and should be submitted no later than the end of the spring term.

**Navy/Marine Corps ROTC Program**

The Department of Naval Science provides professional training for students leading to an active duty commission at graduation in the U.S. Navy or Marine Corps. Through the NROTC, scholarship students receive full tuition, fees, books, and subsistence pay of $250 to $400 per month. Non-scholarship students may apply to participate as members of the midshipman battalion under the NROTC College Program, and, if selected for advanced standing prior to their junior year, may receive an active duty commission at graduation. Because of the rapid development of highly technical ship systems, aviation, and other military equipment, science and engineering majors are highly desirable; however, Navy/Marine Corps scholarship students are currently available to students pursuing any major offered by UCLA, as long as they agree to complete basic technical requirements. In addition to UC and UCLA requirements, Navy option midshipmen must complete 30 units and Marine option midshipmen 22 units of naval science courses, physical fitness tests, and summer training, each about four to six weeks long. Both Navy and Marine Corps option students must also pass a swimming test. Naval science courses are open to UCLA students who are not in the program with consent of instructor and demonstrated interest in the Navy/Marine Corps and related fields, such as engineering, navigation and naval operations, history, and management.

**Undergraduate Study**

**College Program (Nonscholarship)**

Students attending UCLA who meet Navy/Marine Corps requirements but who do not have an NROTC scholarship may enroll in the College Program during their freshman or sophomore year. These students have the opportunity to compete for scholarships. If they do not win a scholarship, or choose not to compete for one, they must compete for advanced standing prior to their junior year. All College Program students receive uniforms, naval science textbooks and, once selected for advanced standing, monthly subsistence pay in their junior and senior years.

**Marine Corps Option**

Highly motivated NROTC students may request designation as Marine Corps option students and may also pursue any UCLA academic degree. The final summer training, and a requirement to be commissioned as an officer in the Marine Corps, involves intensive Marine training at Officer Candidate School in Quantico, Virginia. Marine Corps option students also participate, on a limited basis, in field training exercises during the academic year.
Recommended requisite for Naval Science ROTC midshipmen: course 102B. Capstone and second of two core leadership courses that provide academic foundation of NRTOC leadership development. Integration of intellectual exploration of Western moral traditions and ethical philosophy with military leadership, core values, professional ethics, Uniform Code of Military Justice, and Naval regulations. Provides midshipmen with basic understanding of major moral traditions, including relativism, utilitarianism, Kantian ethics, natural law theory, divine command theory, and virtue ethics. Letter grading.

103. Evolution of Warfare. (4) Study of evolution of warfare, including historical and comparative consideration of influence that leadership, political, economic, social, and technological and developmental factors have had on warfare and influence they continue to exert in age of limited warfare.

104. Fundamentals of Maneuver Warfare. (4) Seminar, four hours. Study of fundamentals of maneuver warfare, with particular emphasis on doctrine, tactics, and equipment used. Examination of topics through study of political and military objectives by focusing on historical examples from Revolutionary War to modern times. Examination of contemporary doctrine through study of recent operations. Letter grading.

197. Individual Studies in Naval Science. (1-4) Tutorial, four hours. Limited to juniors/seniors. Individual intensive study, with scheduled meetings to be arranged between faculty member and student. Assigned reading and tangible evidence of mastery of subject matter required. May be repeated for credit. Individual contract required. P/NP or letter grading.

NEAR EASTERN LANGUAGES AND CULTURES

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Kathlyn (Kara) M. Cooney, PhD, Chair

Professors
Khaleed M. Abou El Fadl, JD, MA, PhD (Omar and Azmeralda Alfie Endowed Professor of Islamic Law)
Carol A. Balkhos, PhD
Aaron A. Burke, PhD (Kershaw Professor of Ancient Eastern Mediterranean Studies)
Kathlyn (Kara) M. Cooney, PhD
Michael D. Cooperson, PhD
S. Peter Cowe, PhD (Narekatsi Professor of Armenian Studies)
William M. Schniedewind, PhD
M. Rahim Shayanegar, PhD (Ahangir and Eleanor Amuzegar Professor of Iranian Studies)
Susan E. Smykowics, PhD
Willeke Z. Wendrich, PhD (Joan Sibree Professor of African Cultural Archaeology)

Professors Emeriti
Arnold J. Band, PhD
Andras E. Bodrogi, PhD
Giorgio Buccellati, PhD
Elizabeth F. Carter, PhD
Herbert A. Davidson, PhD
Robert K. Englund, PhD
Lev Hakim, PhD
Ismail K. Poonaawala, PhD
Yona Sabar, PhD

Associate Professors
Nouri Gana, PhD
Asma Sayeed, PhD

Assistant Professors
Catherine E. Bonesho, PhD
Domenico Ingenti, PhD
Gina Konstantopolous, PhD
Luke B. Yarbrough, PhD

Senior Lecturers
Nancy Ezer, PhD
Latifeh E. Haiggi, MA
Anahid Keshishian, PhD, Emerita
Jeremy D. Smoak, PhD

Lecturers
Katherine S. Burke, PhD
Barbara Cifolia, PhD
Abeer T. Hamza, PhD
Hagop Kouyoujian, MBA
Beyza Lorenz, PhD
Nahid Pirnazar, PhD
Banafsheh Pourzangari, MA
Jonathan P. Winnerman, PhD

Adjunct Professors
Ahmad Karimi-Hakkak, PhD
Nader Saeidi, PhD

Adjunct Associate Professor
Hans Barnard, MD, PhD

Adjunct Assistant Professor
Ali Mousavi, PhD

Undergraduate Study

The department offers the Bachelor of Arts degree in five fields: Ancient Near East and Egyptology, Arabic, Iranian Studies, Jewish Studies, and Middle Eastern Studies. MA and PhD programs are offered in Ancient Near Eastern Civilizations, Arabic, Armenian, Hebrew, Iranian, Islamic Studies, Semitics, and Turkic. Courses in the department prepare students for careers in government, foreign trade, teaching abroad, journalism abroad, archaeology, and further academic work involving the area.

The mission of the Department of Near Eastern Languages and Cultures is the discovery, interpretation, dissemination, and preservation of human values created over a period of five or more thousand years in an area that was the cradle of all civilization. The department offers instruction in the major modern and ancient languages of the Near East: Akkadian, ancient Egyptian, Arabic, Aramaic, Armenian, Berber, Coptic, Hebrew, Persian, and Turkic. To meet increasing demands for a knowledge of this area and its past and present, it treats each language in a wide perspective—as a means of communication, as a vehicle of a cultural heritage, as a research tool for the area, and as an object of research itself.

Undergraduate majors may be taken in Ancient Near East and Egyptology, Arabic, Iranian Studies, Jewish Studies, and Middle Eastern Studies. In each of these fields students must meet the requisites and take the courses prescribed. Their adviser assists in selecting a plan of study developed around their interests.

Students may combine their major with one in another department (double major) to enhance their educational opportunities. Due to the number of additional courses required, they are advised to consider this option early in their academic career and in consultation with program advisers in both majors.
Ancient Near East and Egyptology BA

Learning Outcomes
The Ancient Near East and Egyptology major has the following learning outcomes:

- Demonstrated mastery of the ancient Near East and its history
- Demonstrated skills and expertise, including research, analysis, and writing
- Identification, evaluation, and analysis of historical monuments, time periods, vocabulary, concepts, and historical figures

Preparation for the Major

Transfer Students
Transfer applicants to the Ancient Near East and Egyptology major with 90 or more units must complete the following introductory courses prior to admission to UCLA: one civilization course on Mesopotamia, Egypt, Near Eastern archaeology, or Middle Eastern cultures.

Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

The Major
Students must complete 10 courses as follows:

Required Core Courses: One course selected from four of the following five areas (total of four courses):

- History: Ancient Near East M103A through M104D, M110A, or Jewish Studies M182A.
- Religion: Ancient Near East M130, M133, M167, M185D, Iranian 170, or Jewish Studies M155.

Required Elective Courses: Any six courses (no more than three may be from Anthropology) selected from the categories above or from Ancient Near East 121A, 121B, 121C, 122A, 122B, 124, 125A, M125B, M125C, C177, Anthropology 110, CM110Q, 111, 112A, 130, 140, English 111A, 111B, 111C, Greek 130, Hebrew 125, 130, 135, 188F, Study of Religion M166A, M166B, M166C, Semitics 130, M141, M142.

A maximum of 8 units of special studies courses (197, 198, 199) approved by the department may be applied toward the major. Each course must be taken for a letter grade.

Study Abroad
Students are encouraged to spend time abroad either to (1) study with an education abroad program or (2) work on a UCLA-affiliated archaeological excavation in the broader Middle East. For information on studying abroad, contact the Education Abroad Program, 1332 Murphy Hall, 310-825-4995; for UCLA-affiliated excavations, contact the departmental academic counselor at 310-825-4165.

Arabic BA

Learning Outcomes
The Arabic major has the following learning outcomes:

- Demonstrated written and oral mastery of the Arabic language
- Demonstrated knowledge of other Arabic dialects such as Iraqi, Egyptian, etc.
- Demonstrated specific skills and expertise, including research, analysis, and writing
- Ability to read texts in Arabic, and to analyze the language and cultural context
- Identification, evaluation, and analysis of historical monuments, time periods, vocabulary, concepts, and historical figures

Preparation for the Major
Required: Arabic 1A, 1B, 1C, and History 9D or Middle Eastern Studies M50CW.

Transfer Students
Transfer applicants to the Arabic major with 90 or more units must complete the following introductory courses prior to admission to UCLA: one year of Arabic.

Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

The Major
Required: Eleven courses, including (1) Arabic 102A and 102B or 102C and 103C and 103D, or (2) five courses from the department or from Art History M110 and (3) six courses from Anthropology M102A, 102B, 102C, 103C, 103D, M100, M105, M107, M110, M111, 111B, 111C, 112A, 112B, 112C, 113, 116A, 116B, 116C, 120, 123, 130, 132, 141, 142, M148, 150 or M151 (unless taken under item 1), M155, M157, 180, 181, Art History 119A, 119B, C120, Comparative Literature 100, History 105A, 105B, M106, 1088B, 111A, 111B, 111C, Islamic Studies 130, 151, Political Science 132A, M132B, 157, 165. No more than one course may be credited through a proficiency test administered by the department. No more than two upper-division 4-unit independent study or directed research courses (197, 199) may be applied toward the major. Other courses, including extra-departmental courses, may be applied with consent of the adviser.

Iranian Studies BA

Students majoring in Iranian Studies may combine the major with specialization in other fields to enhance their career opportunities. Due to the number of additional courses required, they are advised to consider this option early in their academic career.

Learning Outcomes
The Iranian Studies major has the following learning outcomes:

- Demonstrated written and oral mastery of Persian
- Demonstrated specific skills and expertise, including research, analysis, and writing
- Ability to read texts in Persian and analyze the language and cultural context
- Identification, evaluation, and analysis of historical monuments, periods in time, vocabulary, concepts, and historical figures

Preparation for the Major
Required: Iranian 1A, 1B, 1C, or equivalent.

Transfer Students
Transfer applicants to the Iranian Studies major with 90 or more units must complete the following introductory courses prior to admission to UCLA: one year of Persian.

Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

The Major
Required: Eleven courses, including seven in Iranian language and civilization selected from Ancient Near East CM163, Iranian 102A, 102B, 102C, 103A, 103B, 103C, M10A, M10B, M10C, 120, 140, 141, 142, 161A, 161B, 161C, 170 (at least three of the seven must be selected from Iranian 102A, 102B, 102C, 103A, 103B, 103C, 120, 140, 141, 142) and four elective courses from the department or from Art History 119A, 119B, C120, History 105A, 105B, 105C, Political Science 157. A maximum of two Iranian 197 or 199 courses (8 units total) may be applied toward the major.

Jewish Studies BA

Learning Outcomes
The Jewish Studies major has the following learning outcomes:

- Demonstrated written and oral mastery of the Hebrew language
- Demonstrated specific skills and expertise, including research, analysis, and writing
- Ability to read texts in Hebrew and analyze the language and cultural context
- Identification, evaluation, and analysis of historical monuments, periods in time, vocabulary, concepts, and historical figures

Preparation for the Major
Required: Jewish Studies M10 or two courses selected from Ancient Near East 10W, Middle Eastern Studies M50A, M50B, M50CW, and demonstrated proficiency equivalent to level 3 at UCLA in one foreign language (Arabic, Armenian, Hebrew) in consultation with the department.
**Middle Eastern Studies BA**

**Learning Outcomes**

The Middle Eastern Studies major has the following learning outcomes:

- Demonstrated written and oral mastery of a Middle Eastern language
- Demonstrated specific skills and expertise, including research, analysis, and writing
- Identification, evaluation, and analysis of historical monuments, periods in time, vocabulary, concepts, and historical figures

**Preparation for the Major**

Required: Two courses selected from Ancient Near East 10W, History 9D, Middle Eastern Studies M50A, M50B, M50CW, and demonstrated proficiency equivalent to level 3 at UCLA in one modern Middle Eastern language (Arabic, Armenian, Hebrew, Persian, Turkish) or through a departmental language placement examination. Students selecting ancient languages (including Akkadian, Aramaic, Coptic, Egyptian, Old or Middle Iranian, Sumerian, Syriac) are not required to take a modern elementary Middle Eastern language.

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**Transfer Students**

Transfer applicants to the Jewish Studies major with 90 or more units must complete the following introductory course prior to admission to UCLA: one social, cultural, and religious institutions of Judaism course.

Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

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**The Major**

**Required:** Eleven courses, including (1) three selected from Hebrew 102A, 102B, 102C, 103A, 103B, 103C, 110A, 110B, 111A, 111B, 111C, 125, 130, 135, C140—if they can demonstrate its integral role in their specific course of study, (2) two courses selected from Jewish Studies M103A, M103B, M103C, M184A, and (3) six elective courses selected from Hebrew or Jewish studies or from Ancient Near East M135, 162, English 111A, 111C, German 109, History 191F, Iranian 130, Polish Science 121A, 132A, M132B, Semiotics 130, Study of Religion 120, Yiddish 101A, 101B, 101C, 102A, 102B, 102C, 121A, 121B, 121C, 130, 131A, 131B, 131C.

Students are encouraged to take a research tutorial within Jewish Studies 197 or 199. A maximum of two 197 or 199 courses (8 units total) may be applied toward the major.

**Study in Israel**

Students are encouraged to spend up to one year in Israel either to (1) study with an education abroad program or (2) study at an Israeli university. For information on studying in Israel, contact the Education Abroad Program, 1332 Murphy Hall, 310-825-4889.

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**Ancient Near East and Egyptology Minor**

To enter the Ancient Near East and Egyptology minor, students must have an overall grade-point average of 2.0 or better and file a petition in 378 Kaplan Hall, 310-825-4165.

**Required Lower-Division Courses (10 units):** Ancient Near East 10W, 15W, Middle Eastern Studies M50A, M50B, M50CW.

**Required Upper-Division Core Courses (12 to 15 units):**


**Required Elective Courses (8 to 10 units):**


A maximum of 4 graded units of special studies courses (197, 198, 199) approved by the adviser may be applied toward the minor. No course for the minor or preparation for the minor may be taken on a P/NP grading basis.

A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor.

Each minor course must be taken for a letter grade, and students must have an overall grade-point average of 2.0 or better in the minor. Successful completion of the minor is indicated on the transcript and diploma.

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**Arabic and Islamic Studies Minor**

The Arabic and Islamic Studies minor is designed for students who wish to augment their major program with a group of related courses that provide a systematic introduction to the study of Arabic language and literature and Islam.

To enter the minor, students must have an overall grade-point average of 2.0 or better and file a petition in 378 Kaplan Hall, 310-825-4165.

**Required Lower-Division Courses (15 units):**

- Arabic 1A, 1B, 1C, or equivalent.

**Required Upper-Division Courses (20 units):** Five courses in Arabic or Islamic studies; 199 courses may not be applied. With consent of the undergraduate adviser, two of the five courses may be taken outside the department. Courses recommended as electives for the major in Arabic (Anthropology M166Q, Art History 119A, 119B, C120, Comparative Literature 100, History 105A, 105B, 105C, M106, 108B, 111A, 111B, 111C, 130, Political Science 132A, M132B, 157, 165) may be applied. Other courses, including extra-departmental courses, may be applied with consent of the adviser.
A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor.

Each minor course must be taken for a letter grade, and students must have an overall grade-point average of 2.0 or better in the minor. Successful completion of the minor is indicated on the transcript and diploma.

**Armenian Studies Minor**

The Armenian Studies minor is designed for students who wish to augment their major program with a group of courses that provide a systematic introduction to the study of Armenian culture.

To enter the minor, students must have an overall grade-point average of 2.0 or better and file a petition in 378 Kaplan Hall, 310-825-4165.

**Required Lower-Division Courses (10 to 11 units):** Armenian 101A, 101B, 101C, or 104A, 104B, and 104C, or equivalent; five courses from the Armenian section of the department; 199 courses may not be applied. With consent of the undergraduate advisor, two of the five courses may be taken outside the department. Ordinarily, the following courses may be applied: History 107A through 107E, Indo-European Studies M150.

A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor.

Each minor course must be taken for a letter grade, and students must have an overall grade-point average of 2.0 or better in the minor. Successful completion of the minor is indicated on the transcript and diploma.

**Hebrew and Jewish Studies Minor**

To enter the Hebrew and Jewish Studies minor, students must have an overall grade-point average of 2.0 or better and file a petition in 378 Kaplan Hall, 310-825-4165.

**Required Lower-Division Courses (15 units):** Hebrew 1A, 1B, 1C, or 6, or equivalent.

**Required Upper-Division Courses (20 courses):** Five courses from the Hebrew or Jewish studies section of the department; 199 courses may not be applied. With consent of the undergraduate advisor and based on course content, two of the five courses may be taken outside the department.

A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor.

Each minor course must be taken for a letter grade, and students must have an overall grade-point average of 2.0 or better in the minor. Successful completion of the minor is indicated on the transcript and diploma.

**Iranian Studies Minor**

To enter the Iranian Studies minor, students must have an overall grade-point average of 2.0 or better and file a petition in 378 Kaplan Hall, 310-825-4165.

**Required Lower-Division Courses (10 to 11 units):** Iranian 1C or 20C or equivalent and one course from Middle Eastern Studies M50A, M50B, or M50CW.


A maximum of 4 units of special studies courses (197, 198, 199) approved by the adviser may be applied toward the minor. No course for the minor may be taken on a P/NP grading basis.

A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor.

Each minor course must be taken for a letter grade, and students must have an overall grade-point average of 2.0 or better in the minor. Successful completion of the minor is indicated on the transcript and diploma.

**Israel Studies Minor**

The Israel Studies minor is designed for students interested in adding a particular focus on Israel to their major. Comprised of coursework that serves to create a broad introductory foundation of familiarity with Israeli history, society, politics, and culture, the minor is appropriate for students from a wide range of majors, including Art, Comparative Literature, Film and Television, History, Jewish Studies, Middle Eastern Studies, Political Science, and Study of Religion.

To enter the minor, students must have an overall grade-point average of 2.0 or better, completed Middle Eastern Studies M50CW or equivalent, and file a petition in 378 Kaplan Hall, 310-825-4165.

**Required Lower-Division Courses (10 units):** Two courses from Ancient Near East 10W, 12W, 15W, Middle Eastern Studies M50A, M50B, or M50CW.

**Required Upper-Division Courses (20 to 23 units):** Jewish Studies M142, M144, and three courses from at least two of the following categories: (1) language—Arabic 103A, 103B, 103C, Hebrew 103A, 103B, 103C, 111A, 112, (2) literature, arts, and culture—Arabic 120, M123, 130, M148, Hebrew M113, C140, Jewish Studies M150A, 150B, 151B, M162, 175, Middle Eastern Studies C122, (3) politics—Political Science 120B, 132A, M132B, 157, (4) regional and historical setting—History 105A, 105B, 105C, Study of Religion 110, 120.

A maximum of 4 graded units of special studies courses (197, 198, 199) approved by the department may be applied toward the minor.

A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor.

Each minor course must be taken for a letter grade, and students must have an overall grade-point average of 2.0 or better in the minor. Successful completion of the minor is indicated on the transcript and diploma.

**Middle Eastern Studies Minor**

The Middle Eastern Studies minor is designed for students who wish to augment their major program in the College of Letters and Science with a group of related courses from various linguistic, literary, archaeological, and historical disciplines of the Near East, from ancient Egypt, Mesopotamia, and biblical studies to the modern Arabic, Armenian, Iranian, Jewish, and Turkish world.

To enter the minor, students must have an overall grade-point average of 2.0 or better and file a petition in 378 Kaplan Hall, 310-825-4165.

**Required Lower-Division Courses (9 to 10 units):** Two courses selected from Ancient Near East 10W, History 9D, Middle Eastern Studies M50A, M50B, M50CW.

**Required Upper-Division Courses (20 units):** A total of five courses, including at least three from one of the following four areas:


- **-language:** Ancient Near East 150A, 150B, Arabic M110, C141, M148.

- **Religion:** Ancient Near East M130, M135, M185D, History M106, Italian 170, 130, 151, Jewish Studies M155, Study of Religion 120.


Students may not substitute a core or elective course with a departmental independent study/directed research course (197, 198, or 199).

A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor.

Each minor course must be taken for a letter grade, and students must have an overall grade-point average of 2.0 or better in the minor. Successful completion of the minor is indicated on the transcript and diploma.
Graduate Study

Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Division website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Graduate Degrees

The Department of Near Eastern Languages and Cultures offers Master of Arts (MA), Candidate in Philosophy (CPHIIL), and Doctor of Philosophy (PhD) degrees in Islamic Studies and in Near Eastern Languages and Cultures.

Ancient Near East

See Semitics for Akkadian, Aramaic, Phoenician, Syriac, and Ugarcitic courses.

Lower-Division Courses

10W. Jerusalem: Holy City. (5) Lecture, three hours; discussion, one hour. Enforced requisite: English Composition 3. Not open for credit to students with credit for course 12W. Survey of religious, political, and cultural history of Jerusalem over three millennia as symbolic focus of three faiths: Judaism, Christianity, and Islam. Transformation of sacred space as reflected in literary and archaeological evidence through examination of testimony of artifacts, architecture, and iconography in relation to written word. Study of creation of mythic Jerusalem through event and experience. Satisfies Writing II requirement. Letter grading.

12W. Jerusalem: Holy City. (5) Seminar, four hours. Enforced requisite: English Composition 3. Not open for credit to students with credit for course 10W. Survey of religious, political, and cultural history of Jerusalem over three millennia as symbolic focus of three faiths: Judaism, Christianity, and Islam. Transformation of sacred space as reflected in literary and archaeological evidence through examination of testimony of artifacts, architecture, and iconography in relation to written word. Study of creation of mythic Jerusalem through event and experience. Development of advanced writing skills and critical thinking. Satisfies Writing II requirement. Letter grading.

15W. Women and Power in Ancient World. (5) Lecture, four hours; discussion, one hour. Requisite: English Composition 3. Not open for credit to students with credit for course 15W. Examination of how feminine power confronts masculine dominance within complex social systems in ancient world. To gain political power, some female rulers used their sexuality to gain access to important men. Other women gained their position as regents and helpers of masculine kings who were too young to rule. Others denied their feminity in dress and manner, effectively androgynizing themselves or pretending to be men so that their feminity would not be obstacle to political rule. Many women only gained throne at end of dynasties after male line had run out entirely, or in midst of civil war when patrilineal successions were in disarray. No women were able to gain reigns of power through their bloodlines alone. Women’s power was compromised from outset. Examination of root causes and results of this political inequality. Satisfies Writing II requirement. P/NP or letter grading.

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

20. Egyptian Hieroglyphs. (5) Lecture, five hours. Basic introduction to language and hieroglyphic script of ancient Egypt. Devoted to learning principles of hieroglyphic writing and Egyptian grammar, deciphering standard inscription and hieroglyphic text editing software to type hieroglyphs on computer. Students acquire ability to recognize and translate hieroglyphic inscriptions on common museum objects. P/NP or letter grading.

M50A. First Civilizations. (5) Same as Middle Eastern Studies M50A.) Lecture, three hours; discussion, one hour. Survey of great civilizations of ancient Near East—Egypt, Israel, and Mesopotamia—with attention to emergence of writing, monotheism, and urban societies. Letter grading.

M50B. Origins of Judaism, Christianity, and Islam. (5) Same as Middle Eastern Studies M50B and Religion M50B.) Lecture, three hours; discussion, one hour. Examination of three major monotheisms of Western cultures—Judaism, Christianity, and Islam—historically and comparatively. Development, teachings, and ritual practices of each tradition up to and including medieval period. Composition and development of various sacred texts, highlighting key themes and ideas within different historical and literary strata of traditions. Such aspects as revelation, soteriology, laws, religious authority, and common theological issues such as origin of evil and status of nonbelievers. Letter grading.

M60. Achaemenid Civilization and Empire of Alexander. (5) Same as History M60.) Lecture, three hours; discussion, one hour. Survey of period from circa 600 to 300 BCE, rise and fall of Achaemenid Persia, first world empire of antiquity, which was ended by Alexander the Great, whose campaigns were as transformative as they were violent. Alexander connected ancient Mediterranean and Near East as never before, ushering in new era and forever changing cultural landscape of ancient world. Focus on themes of ancient kingship and political ideology; comparative study of empires; administration and institutions; and religious and ethnic diversity in large, heterogeneous space of empire. Texts combine breadth of knowledge of Achaemenid and Macedonian empires, facility with ancient primary sources, and development of analytical skills central to discipline of history. P/NP or letter grading.

89. Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to lower-division lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

89HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to lower-division lecture course. Independent study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

Upper-Division Courses

CM101A. Art and Architecture of Ancient Egypt, Predynastic Period to New Kingdom. (4) Same as Art History M101A; Lecture, three hours. Study of architecture, sculpture, painting, and minor arts during Predynastic period and Old Kingdom. May be repeated for credit with consent of instructor. Concurrently scheduled with course C267A. P/NP or letter grading.

CM101B. Art and Architecture of Ancient Egypt, New Kingdom to Greco-Roman Period. (4) Same as Art History M101B. Lecture, three hours. Study of architecture, sculpture, painting, and minor arts from New Kingdom to Greco-Roman period. Concurrently scheduled with course C267B. P/NP or letter grading.

M101C. Ancient Egyptian Temple and City of Thebes. (4) Same as Art History M101C. Lecture, four hours; fieldwork, one hour. Focus on ancient temples of city of Thebes (modern day Luxor). Theban temples are some of best-preserved cult buildings in all of Egypt, and their study illuminates traditions of artistic representation, architectural development, and social and political transformations echoed throughout all of ancient Egypt. Investigation of ritual linking of temples or cities to the eastern and western regions of Egypt through focal processions, chronological changes in function and form of Theban temples through time, and programmatic study of individual temples. P/NP or letter grading.

M103A-M103B. History of Ancient Egypt, (4-4) (Same as History M103A-M103B.) Lecture, three hours; discussion, one hour (when scheduled). Course M103A is not requisite to M103B. Designed for juniors/seniors. Political and cultural institutions of ancient Egypt and ideas on which they were based. P/NP or letter grading. M103A. Historical overview from its origins to end of Neo-Assyrian period, P/NP or letter grading. M103B. New Kingdom to late period of Egyptian history, P/NP or letter grading.

M104A. History of Ancient Mesopotamia and Syria. (4) Same as History M104A.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Political and cultural development of Near East, including interaction between Israel and neighboring cultures of northern Mesopotamia; focus on themes such as origin of evil and status of nonbelievers. Letter grading.

M104B. Sumerians. (4) Same as History M104B.) Lecture, three hours. Overview of Sumer and related cultures of Greater Mesopotamia in 4th and 3rd millennium BCE, with focus on rich cultural history of region and integration of archaeological, art historical, and written records. P/NP or letter grading.

M104C. Babylonians. (4) Same as History M104C.) Lecture, three hours. Overview of ancient Mesopotamian and cultural history of region from late 3rd millennium BCE to invasion of Cyrus in 539 BCE, with focus on history and archaeology of region, urban structure, literature, art, and religious history. P/NP or letter grading.

M104D. Assyrians. (4) Same as History M104D.) Lecture, three hours. Overview of Assyrian cultural history from its origins to late Neo-Assyrian period (circa 1000 BCE), with focus on rise, military aggression, and decline of Neo-Assyrian Empire. Examination of how peaks and fall of great Assyrian empires. Letter grading.

M105. Archaeology of Egypt and Sudan. (4) Same as Anthropology M105.) Lecture, two hours; laboratory, two hours. Ancient Egypt is known for its iconic archaeological sites such as Giza Pyramids and Tomb of Tutankhamun. From these and thousands of less well-known sites, enormous variety of archaeological information can be gained. Through discussion
of particular archaeological themes, regions, or sites.

122A. Digital Cultural Mapping Core Course B: Google Earth, Geographic Information Systems, Hypercarts, and Timelines. (4) (Same as Architecture M125B.) Lecture, three hours; discussion, one hour. Requisite: course 122B. Hands-on laboratory-based investigation of emerging digital mapping technologies, including software applications, virtual globes, and geographic information system (GIS) systems. Critique and creation of maps of cultural phenomena, applying skills learned in course 122A. Design, development, and implementation of student mapping-based research projects. Part of Digital Cultural Mapping Project supported by W.M. Keck Foundation. P/NP or letter grading.

125C. Digital Cultural Mapping Core Course C: Summer Research. (4) (Same as Architecture and Urban Design M125C.) Lecture, three hours; laboratory, three hours; fieldwork, one hour. Enforced requisite: course M125B or Architecture and Urban Design M125B. Participation in collaborative research projects (GIS) that are research projects in humanities or social sciences using skills learned in courses 125A and M125B. Gathering and input of datasets from real-world sources, creation of virtual representations of data through production of digital maps, and performing analysis of larger dataset to answer specific research questions. Final oral presentation required that details student work and provides critical analysis of source material and technological/methodological issues inherent to type of GIS used for investigation. Part of Digital Cultural Mapping Project supported by W.M. Keck Foundation.

126. Art and Death in Ancient Egypt. (4) (For- merly numbered 166.) (Same as Art History M126.) Lecture, four hours. Ways of death, burial, funerary ritual, and afterlife beliefs in ancient Egypt, as well as in ancient Near East and Nubia, with focus on ancient visual culture. Visual materials—both objects and architecture—from Predynastic to Roman periods. P/NP or letter grading.


150A. Keywords for an Interpretation of Near Ancient Eastern Literatures in English. (4–4) Lecture, three hours. Each course may be taken independently for credit. P/NP or letter grading.


162. Archaeology, Identity, and Bible. (5) Lecture, three hours; discussion, one hour. Introduction of archaeological record of southern Levant (ancient Israel) from Bronze Age through Achaemenid Period (ca. 2500–332 BC) in combination with current understandings of genre, authorship, and historical value of Hebrew Bible. Ancient Israelite identities are traced through combination of archaeological and textual sources. Social, religious, and political traditions of ancient Israel and Judah are interpreted in context of both earlier Bronze Age traditions and Israel's Iron Age neighbors. Archaeological and textual data for identities, such as Amorites, Canaanites, Phoenicians, Egyptians, Assyrians, and Babylonians, form basis for understanding construction of various biblical identities. Introduction to theoretical and methodological issues involving historical archaeology of ancient Israel and Levant, and possibilities for investigating negotiation of identity in archaeological record. P/NP or letter grading.

163. Religion in Ancient Israel. (4) (Same as Classical CM163.) Lecture, three hours. Designed to introduce students to ancient Israel's cultural and religious world through Achaemenid times. Concurrently scheduled with course CM259. P/NP or letter grading.

165. Egyptian Archaeology. (4) Seminar, three hours. Opportunity to research aspects of topics in ancient Egyptian history and archaeology each year. May be repeated for credit. Concurrently scheduled with course CM286. P/NP or letter grading.

166. Art and Death in Ancient Egypt. (4) (Formerly numbered 166.) (Same as Art History M110D.) Lecture, four hours. Ways of death, burial, funerary ritual, and afterlife beliefs in ancient Egypt, as well as in ancient Near East and Nubia, with focus on ancient visual culture. Visual materials—both objects and architecture—from Predynastic to Roman periods. P/NP or letter grading.

167. Magic in Ancient World. (4) (Same as Classics M167.) Lecture, three hours; discussion, one hour (when scheduled). Requisite: Classics 10 or 20. Explooration of influence of magico-religious ideas concerning magic, witchcraft, and the occult in ancient Near East and Egypt. Explores the idea that ancient magical practices were taken at face value and are recast through the modern lenses of historical, social, and cultural context.

168. Introductory Hittite. (4) (Same as Indo-Euro- pean Studies M168.) Lecture, two hours; recitation, one hour. Recommended preparation: knowledge of language with case system. Introduction to Hittite grammar for students entering early Hittite covering morphology and syntax, followed by readings of selected texts from variety of genres in transplantation. P/NP or letter grading.
CM169. Introduction to Archaeological Sciences. (4) [Same as Anthropology CM110Q.] Lecture, three hours. Basic understanding of newly introduced methods and techniques throughout field of archaeology to implement them and to appreciate and evaluate results of their use; others who have em- bedded them in their scholarly publications or theoretical models. Systematic instruction in digital data management and mining, scientific analysis of mate- rials (including microscopic and biochemical tech- niques), and visual presentation of data and research results (ranging from simple graphs to virtual reality). Concurrently scheduled with course CM269. P/NP or letter grading.

M170. Introduction to Biblical Studies. (4) [Same as Religion M172.] Lecture, three hours. Knowledge of original languages not required. Bible (Old and New Testaments) as book, Canon, text, and versions. Lin- guistic, literary, historical, and religious approaches to Bible study. Survey of history of interpretation from an- tiquity to present. P/NP or letter grading.

175. Conceptions of Race in Ancient Egypt. (4) Lecture, three hours; discussion, one hour. Exploration of how racial hierarchies are created and main- tained within context of ancient Egyptian culture. Race of ancient Egyptians is still at stake and tied to larger issues of colonialism, racial characteristics, and racism, oppression. Examination of modern issues invites comparison with conception of race in ancient world, which was not necessarily equivalent to our own. By consulting with experts who have used those of early scholars, contemporary anthropolo- gists, Afrocentrist scholars and artists, Hebrew Bible, ancient Egyptian evidence, and ancient Nubian evi- dence, conception of race is revealed to be complex, fluid, and contradictory. These conceptions were and are used to construct variety of equally contradictory hierarchies, often based on same evidence. P/NP or letter grading.

177. Variable Topics in Ancient Near East. (4) Lecture, three hours; discussion, one hour. Variable topics: consult Schedule of Classes for topics to be offered in specific term. Concurrently scheduled with course C277. P/NP or letter grading.

M179. Cultural Heritage and Identity Representation: Creating Fowler and Virtual Exhibit. (4) [Same as Art History M179.] Lecture, three hours; discussion, one hour. Exploration of what it takes to run a museum and create exhibit. Introduction to different types of museum work, ranging from collecting and curation, to research, conservation, presentation, visitor experi- ence, and education. Students jointly create con- cepts based on Fowler Museum collection. Students re- search and discuss context and different stakeholders that relate to material under consideration. Consider- ation of narratives, and how objects can be used to convey narrative, and the design of master- sation and site reports. Coverage of theoretical implica- tions of these narratives. Students hone their knowledge of course, S/U or letter grading.

211A-211B. Egyptian Texts of Greco-Roman Peri- od. (4-4) Lecture, three hours. Introduction to grammar and orthography of hieroglyphic texts from Greco-Roman temples. Text readings and translation of various text types. Letter grading.

215. Readings in Middle Kingdom Literature. (4) Seminar, three hours. Enrolled requisites: courses 120A, 120B, 120C. Coverage of Middle Kingdom literature through close readings of texts in original lan- guage and evaluation of current scholarship on these texts. Students hone their knowledge of Middle Egyp- tian grammar and become familiar with philological methods in study of Egyptian literature. S/U or letter grading.

220. Seminar: Ancient Egypt. (4) Seminar, three hours. May be repeated for credit. S/U or letter grading.

221A-221B. Demotic. (4-4) Lecture, three hours. Requisite: course 212C. Course 221A is requisite to 221B. Introduction to Demotic grammar and orthog- raphy. Reading of texts from various periods. May be repeated for credit with topic change. S/U or letter grading.

222A-222B. Coptic. (5-5) Lecture, three hours. Introduction to Coptic, final phase of Egyptian language, which is attested in writing from circa 300 to 1400 CE. Concurrently scheduled with courses C123A-C123B. S/U or letter grading. Course 222A is requisite to 222B. Course 222B is prerequisite to subsequent courses in Coptic. S/U or letter grading. May be repeated for credit with topic change. S/U or letter grading.

Graduate Courses

M201. Archaeological Research Design. (4) [Same as Anthropology M201C and Archaeology M201C.] Seminar, three hours. Requisites: Archaeology M201A, M201B. How to design archaeological projects in preparation for MA thesis or PhD phase. Students do exploratory research to select subject, then write research design, and, for extensive, paper, grant application, or oral examination. Students work closely with faculty members and report weekly on their progress. Preparation of at least two oral presentations. Coverage includes one on the theoretical framework and one on practical aspects of project. Final written research design that incorporates theo- retical and practical aspects of research and formu- late bridging arguments required. S/U or letter grading.

M208. Topics in Ancient Egyptian History. (4) [Same as History M210 and Iranian M210.] Seminar, three hours. Varying topics on Elamite, Achaemenid, Ar- sacid, and Sasanian history. May be repeated for credit. S/U or letter grading.

210. Late Egyptian. (4) Lecture, three hours. Requi- sites: courses 121A, 121B, 121C. Late Egyptian grammar and reading of both hieroglyphic and hieratic texts. May be repeated for credit. S/U or letter grading.

211A-211B. Egyptian Texts of Greco-Roman Peri- od. (4-4) Lecture, three hours. Introduction to grammar and orthography of hieroglyphic texts from Greco-Roman temples. Text readings and translation of various text types. Letter grading.

215. Readings in Middle Kingdom Literature. (4) Seminar, three hours. Enrolled requisites: courses 120A, 120B, 120C. Coverage of Middle Kingdom literature through close readings of texts in original lan- guage and evaluation of current scholarship on these texts. Students hone their knowledge of Middle Egyp- tian grammar and become familiar with philological methods in study of Egyptian literature. S/U or letter grading.

220. Seminar: Ancient Egypt. (4) Seminar, three hours. May be repeated for credit. S/U or letter grading.

221A-221B. Demotic. (4-4) Lecture, three hours. Requisite: course 212C. Course 221A is requisite to 221B. Introduction to Demotic grammar and orthog- raphy. Reading of texts from various periods. May be repeated for credit with topic change. S/U or letter grading.

222A-222B. Coptic. (5-5) Lecture, three hours. Introduction to Coptic, final phase of Egyptian language, which is attested in writing from circa 300 to 1400 CE. Concurrently scheduled with courses C123A-C123B. S/U or letter grading. Course 222A is requisite to 222B. Course 222B is prerequisite to subsequent courses in Coptic. S/U or letter grading. May be repeated for credit with topic change. S/U or letter grading.

230. Seminar: Ancient Syria-Palestine. (4) Seminar, three hours. Examination of selected topics on polit- ical, social, and intellectual history of ancient Israel. Exploration of how historical, social, and political con- texts shaped and influenced interpretation and use of biblical texts. May be repeated for credit. S/U or letter grading.

240A-240B. Seminars: Sumerian Language and Literature. (4-4) Seminar, two hours. Readings of texts from various Sumerian periods and literary selections. Concurrently scheduled with course CM259. P/NP or letter grading.

259. Archaeology of Iran. (4) [Same as Iranian CM259.] Lecture, three hours. Designed to introduce students to Iranian or ancient history from prehistoric through Achaemenid times. Concurrently scheduled with course CM163. S/U or letter grading.

260. Seminar: Ancient Near Eastern Archaeology. (2 to 4) Seminar, two hours. May be repeated for credit. S/U or letter grading.

261. Practical Field Archaeology. (2 to 8) Fieldwork, two hours. Participation in archaeological excavations or other archaeological research in Near East under staff supervision. May be repeated for credit. S/U or letter grading.

262. Seminar: Object Archaeology. (4) Seminar, two hours; laboratory, one hour. Selected topics in analysis and interpretation of Near Eastern archaeological finds in museum collections. Students work with objects in Heermanek Museum of Los Angeles County Mu- seum of Art. S/U or letter grading.

263. Seminar: Egyptian Monuments. (4) Seminar, two hours. Selected monuments and sites in Egypt, including Delta, Nile Valley, desert sites, wadis, oases, and border regions. Architecture and decoration of temples and tombs, statue and monuments, settle- ment and use history, text translation of appropriate documents, including stele, monumental inscrip- tions, or pertinent socioeconomic texts. May be re- peated for credit with consent of instructor. S/U or letter grading.

264. Egyptian Museum Collections. (4) Seminar, two hours; research group meeting, one hour. Ancient Egyptian museum collections around world, data sets, provenance and dating studies, collection history and agenda, museology, and exhibition history. May be re- peated for credit with consent of instructor. S/U or letter grading.

265. Depositional History and Stratigraphic Anal- ysis. (4) [Same as Anthropology M265.] Lecture, two hours. Theoretical understanding of depositional pro- cesses ("stratigraphy") which leas to archaeological and of stratigraphic procedures to be used in recovery of em- bedded cultural materials. Study of issues covered in literature, with specific test cases from actual excava- tions. Course report and analysis of complica- tions of such disciplines as surveying and pedology with help of specialists. S/U or letter grading.

266. Egyptian Archaeology. (4) Seminar, three hours. Opportunity to research aspects of topics in ancient Egyptian Archaeology. Topics vary each year. May be repeated for credit. Concurrently scheduled with course C165. S/U or letter grading.

C267A. Art and Architecture of Ancient Egypt, Pre- dynastic Period to New Kingdom. (4) Lecture, three hours. Study of architecture, sculpture, painting, and minor arts from Predynastic period and Old Kingdom. May be repeated for credit with consent of instructor. Concurrently scheduled with course CM101A. S/U or letter grading.

C267B. Art and Architecture of Ancient Egypt, New Kingdom to Greco-Roman Period. (4) Lecture, three hours. Study of architecture, sculpture, painting, and minor arts from New Kingdom to Greco-Roman period. Concurrently scheduled with course CM101B. S/ U or letter grading.

CM269. Introduction to Archaeological Sciences. (4) [Same as Anthropology CM210G.] Lecture, three hours. Basic understanding of newly introduced methods and techniques throughout field of archaeo- nology to implement them and to appreciate and evaluate results of their use by others who have em- bedded them in their scholarly publications or theoretical models. Systematic instruction in digital data
Upper-Division Courses

102A-102B-102C. Intermediate Standard Arabic. (4–4–4) Lecture, four hours. Enforced requisite: course 1C or 6. Course 102A is requisite to 102B, which is requisite to 102C. Not open to students who have learned, from whatever source, enough Arabic to qualify for more advanced courses. Intermediate formal Arabic, including listening, speaking, reading, and writing. P/NP or letter grading.

103A-103B-103C. Advanced Arabic. (4–4–4) Lecture, four hours. Enforced requisites: courses 102A, 102B, 102C. Not open to students who have learned, from whatever source, enough Arabic to qualify for more advanced courses. Advanced formal Arabic, including grammar, composition, and readings from classical and modern texts. P/NP or letter grading.

105. Introduction to Qur'anic and Islamic Arabic. (4) Lecture, three hours. Enforced requisite: course 1A, 1B, 1C. Introduction to Arabic used in Qur’an, Hadith (traditions of Prophet Muhammad), and early Islamic literature (biographies of Prophet and historical narrators). P/NP or letter grading.

M106. Qur’an. (4) (Same as Religion M108.) Lecture, three hours. Introduction to Qur’an, its early history, and form and function as scripture in Muslim history, civilization, and culture. Focus also on Qur’anic interpretation and selected aspects of Islam and Qur’an in contemporary discourses such as human rights, feminism, and contemporary reform movements. Primary sources include excerpts from Qur’an, Qur’anic interpretation, and selected writings of Muslims thinkers and reformists. Strong focus on analytical and writing skills through in-class assignments and discussion. Letter grading.

M107. Cairo and the Nile West. (5) (Same as Islamic Studies M107 and Religion M107.) Lecture, three hours; discussion, one hour. Acquisition of understanding of basic doctrines and practices of Islam. Survey of history of Islam in West, with focus on U.S. and France. Analysis of issues relevant to growth and development of selected Muslim communities in West. Exposure to diverse expressions of Islam through independent research on Muslim communities and institutions in U.S. Development of strong analytical writing and speaking skills. P/NP or letter grading.

108. Summer Intensive Intermediate Arabic. (12) Lecture, and discussion, 20 hours. Enforced requisite: course 1C. Not open to students who have learned, from whatever source, enough Arabic to qualify for more advanced courses. Intensive course equivalent to courses 102A, 102B, and 102C. Intermediate formal Arabic, including listening, speaking, and writing. Offered in summer only. P/NP or letter grading.

110. One Thousand and One Nights/Alay Layla Wa-Layla. (4) (Same as Comparative Literature M110.) Lecture, three hours. Knowledge of Arabic not required. Since its appearance in Europe in 1704, One Thousand and One Nights is most well-known work of Arabian literature in West. Examination of cycle of tales (One Thousand and One Nights), including history of its translation, contemporary oral performances of tales in Arabic-speaking world, literary emergence of vernacular language in relation to classical Arabic, and Western appropriations of tales in music, film, and novels (Ravel, Filmsk-Korsakov, Barth, Poe, and Walt Disney). P/NP or letter grading.

111A-111B-111C. Arabic Media. (4) (Same as Comparative Literature M123.) Lecture, four hours. Requisite: course 103C. Readings from premodern literary texts, with grammatical and syntactical analysis. May be repeated for credit. Letter grading.

114. Islam in Arabic Dialectology. (4) Lecture, three hours. Introduction to one spoken dialect of Arabic, with emphasis on speaking and listening comprehension. Dialects vary from year to year based on student interest and instructor availability and may include Iraqi, Levantine, North African, or Gulf Arabic. May be repeated for credit. P/NP or letter grading.

116A-116B-116C. Arabic Seminars. (5–5–5) Lecture, five hours. Course 116A is requisite to 116B, which is requisite to 116C. Not open to students who have learned, from whatever source, enough Arabic to qualify for more advanced courses. Arabic spoken in contemporary Iraq, with emphasis on conversational proficiency. Recognition and production of sounds of Iraqi Arabic and basic vocabularies, grammar, idiomatic expressions, and relevant cultural background through dialogues and other conversational exercises. P/NP or letter grading.

120. Islamic Texts. (4) Lecture, four hours. Requisite: course 103C. Readings from Qur’an, Tafsir, Hadith, Fikih. May be repeated for credit. P/NP or letter grading.

130. Classical Arabic Texts. (4) Lecture, four hours. Requisite: course 103C. Readings from premodern literary texts, with grammatical and syntactical analysis. May be repeated for credit. Letter grading.


140. Readings in Modern Standard Arabic. (4) Lecture, four hours. Requisite: course 103A, or consent of instructor. Development of reading, speaking, and writing abilities in modern standard Arabic, as well as cultural knowledge, through film screenings, discussions, written compositions, oral presentations, and reading authentic literary texts from Arabic-speaking world. Prepares students for more advanced literary Arabic courses. P/NP or letter grading.

C141. Modern Arabic Literature. (4) Lecture, three hours. Requisite: course 102C. Conducted in English and open to students with all levels of proficiency in Arabic only. Readings in modern Arabic literature, variously organized across or around particular trends, genres, topics, canonical authors, regional, or national literatures. Mix teaching thematic and formal analyses of literary and critical texts and making use of film, video, clip, and song in approaching literary culture. May be repeated for credit. Concurrently scheduled with course C241. Letter grading.

142. Arabic Media. (4) Lecture, four hours. Requisite: course 103A. Development of facility with language of Arabic press and broadcasting. Activities include monitoring current materials via Internet; transcribing, translating, and summarizing original reports in Arabic; and oral presentations and discussions. May be repeated for credit. P/NP or letter grading.

M148. Contemporary Arab Film and Song. (4) (Same as Comparative Literature M148.) Seminar, three hours. Exploration of conjunctions between contemporary Arab film and song and between popular cultures and cultures of commitment (fitzam), with possible focus on specific genres such as realist/neo-realist Arab film; feminist Arab film; and Arab film and song; topics such as nation, gender, and representation or democracy and human rights or censorship, reception, and resistance. Possible examination of various national cinemas and their national music stars, women singers but also of video clip, satellite TV, star academy, and reality shows—all products of transnational and pan-Arab mass media. P/NP or letter grading.
M151. Modern Arabic Language in English. (4) (Same as Comparative Language M167.) Lecture, three hours. Designed for upper-division literature majors. Topics in constructions of other modern Arab culture: East-West debate; memory, trauma, and mourning; violence, narrative, and ethics; globalization, oil, and cultural insurgency; Arab culture in transnational context or questions of reception, exotism, translation, and marketing. Genres may include prison narratives; novel of terror; memoirs by women and/or by refugees and exiles; 19th- and 20th-century travel narratives; Arabic romantic poetry; literature of pre-1948; rise of Arab novel. Areas may range from generic look at Arab world to narrow focus on Maghreb or one country such as Algeria, Palestine, Iraq, Lebanon, or Egypt. May also be organized around Arab literatures written in one specific language, namely English, Arabic, or French. Letter grading.

M155. Al-Andalus: Literature of Islamic Spain. (4) (Same as Anthropology M168.) Lecture, three hours. Study of literature of Islamic Spain to learn about interaction of Arabic and Western and Arabic and Jewish cultures and to recognize Islamic culture as a vital force in European life and letters. P/NP or letter grading.

M171. Culture Area of Maghrib (North Africa). (4) (Same as Anthropology M1662 and History M1068C.) Lecture, three hours. Designed for juniors/seniors. Introduction to Maghrib, especially Morocco, Algeria, Tunisia, and Libya, also known as Maghrib or Tamazgha. Topics include changing notions of personal, tribal, ethnic, linguistic and religious identities; colonialism; gender and legal rights, changing representations of Islam, and religions in region’s public spaces. P/NP or letter grading.

177. Variable Topics in Arabic. (4) Lecture, three hours. Variable topics; consult schedule of classes for topics to be offered in specific term. May be repeated for credit. P/NP or letter grading.

180. Linguistic Analysis of Arabic. (4) Lecture, four hours. Requisite: course 102C. Linguistic description of Arabic in both its modern standard and dialect forms. Introduction to linguistic analysis of Arabic phonology, morphology, syntax and to linguists’ approaches to specific problems posed by Arabic grammatical forms. P/NP or letter grading.

181. Translating Arabic. (4) Seminar, three hours. Preparation: advanced proficiency in English and Arabic (at least three years of Arabic instruction or equivalent). Open to both native and nonnative speakers of English and Arabic. Training of students in methodology of translation from Arabic into English, with focus on producing accurate and readable English versions of Arabic texts from variety of fields. Close reading and translation of Arabic texts, with view of linguistic and cultural difficulties that arise in course of translation. Texts may include classical Arabic literature (religion, historiography), modern writing (literature, media), and spoken Arabic television, radio), based on student interest. Letter grading.

188FL. Special Studies: Readings in Arabic. (2) Seminar, two hours. Requisite: course 102C. Students must have good proficiency in Arabic. Texts will be chosen in affiliation with Arabic courses. May be repeated for credit. P/NP or letter grading.

189. Advanced Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to undergraduate lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor.

May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

189HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designated as adjunct to upper-division lecture course. Individual study with lecture course instructor to explore in greater depth topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.


199. Directed Research or Senior Project in Arabic. (2 to 4) Tutorial, one hour. Limited to juniors/senior. Supervised individual research or investigation under guidance of faculty mentor. Culuminating paper or project required. May be repeated for credit. Individual contract required. P/NP or letter grading.

Graduate Courses

220. Seminar: Islamic Texts. (4) Seminar, three hours. Major Islamic thinkers and their works from classical period to modern times. Coverage of doctrines and hermeneutics of thought in Islam, such as Ahl al-sunna wa’l-jama’a, Shi’a, Mu’tazila, and Sufis. May be organized around one author or scholar, the writings of many authors or their works, or specific topic with representative readings from various schools. Exploration of secondary literature in Arabic and other languages for student research papers. May be repeated for credit. S/U or letter grading.

220M2. Texts in Judeo-Arabic (4) (Same as Hebrew M231.) Lecture, three hours. Requisites: course 102C, Hebrew 102B. Reading of Judeo-Arabic texts by major monodies (medieval religion, medicine, philosophy) and more recent sources. Includes study of dialects of Iraq and Egypt, with discussion of grammar and deviations from norms of classical Arabic. S/U or letter grading.

240A. Seminar: Arab Historians. (4) Seminar, three hours. Introduction to very large body of literature on medieval Islamic civilization. Readings in Arabic that represent cross-section of Islamic historical writings, including Ibn Ishaq’s Sira, Waqidi’s Maghazi, Baladhuri’s Futuh, Tabari’s Tariikh, digests of Ya’qubi and al-Mas’udi, Ibn Khaldun’s Muqaddima, and al-Maqzzi’s topography. Historians studied either to determine their reliability as sources or their view of history and its theoretical foundations. Exploration of sources, search for tools, and methodology. May be repeated for credit. S/U or letter grading.

240B. Seminar: Arab Geographers. (4) Seminar, three hours. Introduction to very large body of literature on medieval Islamic geographers. Selected readings in Arabic that represent cross-section of Islamic geographical writings distributed over number of disciplines and various aspects of geography, such as Surat al-ard, Kitab al-Buldan, al-Masalik wa’l-mamalik, and travel accounts. May be repeated for credit. S/U or letter grading.

241. Modern Arabic Literature. (4) Lecture, three hours. Requisite: course 102D. Conducted in English and Arabic, with all required readings in original Arabic only. Readings in modern Arabic literature, variety organized across or around particular trends, genres, topics, canonical authors, regional, or national literatures. Assignments will consist of analyses of literary and critical texts and making use of film, video-clips, and song in approaching literary culture. May be repeated for credit. Concurrently scheduled with course C411-L. Letter grading.

250. Seminar: Premodern Arabic Literature. (4) Seminar, three hours. Readings in Arabic texts from variety of periods and genres, along with appropriate secondary literature. Topics include pre-Islamic poetry and oratory, Qur’an, Umayyad and Abbasid poetry and literary prose, Hadith and Fiqh, historiography, biographies, geography, medicine, mathematics, theology, asceticism, and mysticism. May be repeated for maximum of 24 units. S/U or letter grading.

251. Seminar: Modern Arabic Literature. (4) Seminar, three hours; discussion, one hour. Requisite: course C141. Selected topics in modern and contemporary Arabic poetry and prose. May be repeated for credit. Letter grading.

M255. Literatures and Cultures of Maghreb. (4) (Same as Comparative Literature M251.) Seminar, two hours. Limited to graduate level. Examination of traditionally diverse literatures of Maghreb in their multiple and competing contexts of language and gender politics, religious and cultural formations, Pan-Arabism and postcolonial nationalism, Third-Worldism and economic development, modernity and globalization, immigration and citizenship, soccer industry and Rai music, mass media and Star Academy Maghreb, and so on. Letter grading.

275. Encountering Arabic Manuscripts: Introduction to Arabic Paleography and Critical Edition of Manuscripts. (4) Lecture, three hours. Discussion, one hour. Requisite: course 103C. Introduction to Arab paleography and how to prepare editions of medieval manuscripts with critical apparatus and supplemental commentary. May be organized around previously unknown Arabic manuscripts have been discovered. While vast range of medieval texts have been published in editions of varying quality, equally large number of manuscripts remain unpublished. UCLA has outstanding collections of Near Eastern manuscripts in Arabic, Persian, and Ottoman Turkish, primarily in fields of medicine, literature, philology, theology, law, and history. It is rich in studies of theologians and scholars at different centers of learning in Iran during Safavid period noted for works of Shiite theology, Islamic sciences, and philosophy. Course offers the true treasure to graduate students interested in editing and/or translating manuscripts. S/U or letter grading.

M298. Modern Arab Thought. (4) (Same as Comparative Literature M288.) Seminar, three hours. While much has been written and said about resurgence and spread of political Islam after collapse of ideology of secular nationalism and failure of Arab left to apprehend capabilities of postcolonial moment, little has been devoted to less sensational topic of modern Arab thought despite unmistakable proliferation of critical output produced by Arab thinkers and intellectuals in aftermath of 1967. Course addresses and reimagines the glaring imbalance by considering new cultural work produced by Arab thinkers and intellectuals in aftermath of 1967 and reimagines the glaring imbalance by considering new cultural material—literary, critical, philosophical, artistic, and journalistic—produced before and after al-Nahda but mostly before and after 1967 and fosters insightful approaches to uniquely coexistent in Arab contemporaneity of ever-deepening and generalized crisis and of steady and consolidated development (if not affluence) of cultural and artistic production. S/U or letter grading.

496. Arabic Language Pedagogy Course. (2) Seminar, three hours. Taught in English and Arabic. Discussion of multiple topics pertaining to Arabic language teaching and learning. Course addresses Arabic language pedagogy, with emphasis on practical issues and applications of different language teaching methodologies. Activities include lectures, classroom observations, and teaching demonstrations. Participants collaborate on projects that investigate issues related to teaching different language skills, such as listening, speaking, reading, and writing. S/U grading.

596. Directed Individual Study. (2 to 8) Tutorial, to be arranged. May be repeated for credit. S/U or letter grading.


Armenian

Lower-Division Courses

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

89. Honors Seminars. (1) Seminar, three hours. Limited to 20 students, enrolled as adjunct to lower-division lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be repeated toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

98HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to lower-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

99. Student Research Program. (1 to 2) Seminar, one to two hours per week per unit. Entry-level research for lower-division students under guidance of faculty mentor. Students must be in good academic standing and enrolled in a lower-division course (enrolling in this course). Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP grading.

Upper-Division Courses

101A-101B-101C. Elementary Modern Western Armenian. (5–5–5) Lecture, five hours. Course 101A is recommended requisite to 101B, which is recommended requisite to 101C. Students with knowledge of Armenian should contact instructor to determine appropriate enrollment level. Armenian grammar, conversation, and exercises. P/NP or letter grading.

102A-102B-102C. Intermediate Modern Armenian. (5–5–5) Lecture, five hours. Recommended requisite: course 1C or 4C. Exploration of cultural features of heritage speakers, patterns and domains of language use, psychological constraints (e.g., anxiety, fear, etc.) connected with speaking Armenian, language attitudes with ideologies, and role of language in Armenian identity construction. P/NP or letter grading.

120. Language in Diaspora: Armenian as a Heritage Language. (4) Lecture, three hours. Comprehensive examination of status of Armenian as heritage language in diasporic context. Introduction to diaspora, partisans, and diaspora; Armenian language and heritage learners; Review of development of modern standards of Armenian (Eastern and Western) and special circumstances for each variety in order to position Armenian on sociolinguistic map of heritage languages. Exploration of issues such as linguistic features of heritage speakers, patterns and domains of language use, psychological constraints (e.g., anxiety, fear, etc.) connected with speaking Armenian, language attitudes with ideologies, and role of language in Armenian identity construction. P/NP or letter grading.

130. Armenian Civilization under Bagratid Dynasty, 884 to 1064. (4) Lecture, four hours. Interdisciplinary investigation of interface between sociopolitical and economic factors in creation of works of art (literature, art, architecture, and social function) these works performed in this important period of Armenian history. Letter grading.

131. Armenian Civilization in Cilician Period, 1080 to 1375. (4) Lecture, four hours. Interdisciplinary investigation of rise and fall of unique form of Armenian poetics established outside homeland and examination of degree to which its social structure and cultural and aesthetic norms were impacted by those of Western (Byzantium, Western Europe, and East (Crusader states, Seljuks, Mamluks, Mongols)). Letter grading.

M134. Introduction to Armenian Music. (4) Same as Ethnomusicology M134 and Music M134.) Lecture, three hours. Some amount of formal music study and experience as vocalist or instrumentalist desireable but not essential. Introduction to history, tradition, and scope of music of Armenia. Focus on number of different genres and approaches, and interactions between music and culture, society, and history. P/NP or letter grading.


151. Armenian Literature and Canon Formation. (4) Lecture, four hours. Discussion of fundamental themes and genres around which Armenian literary tradition evolved and modalities by which this has been transformed in course of last two centuries as re- suit of exposure to European thought and expressive forms. Concurrently scheduled with course C251. P/NP or letter grading.

C152. Modern Armenian Drama as Vehicle for Social Critique. (4) Lecture, four hours. Readings of selected plays from 1600s to 1992 from three main geographic centers: Armenia, Turkey, and in diaspora. Serious drama and featuring works by most significant Armenian playwrights, with focus on their role as commentators on contemporary mores and as agents for social reform. Concurrently scheduled with course C252. Letter grading.

C153. Art, Politics, and Nationalism in Modern Armenian Literature. (4) Lecture, four hours. Examination of role of literature in political society in service to cause or causes, as propaganda for various ideologies, as art for art's sake, etc. Exploration of contrasting aesthetics implicit in these differing interpretations. Concurrently scheduled with course C253. P/NP or letter grading.

C155. Issues in Armenian American Literature and Culture. (4) Lecture, four hours. Preparation: reading knowledge of modern Eastern and Western Armenian. Thorough and informed exploration of some of most salient questions related to Armenian American community as reflected in its literature and other cultural artifacts in interaction with its pluralistic American ambience. Concurrently scheduled with course C255. Letter grading.


C166. Armenian Film and Culture. (5) Lecture, six hours. Required: course 1C or 4C. Exploration of development of Armenian cinematography from first talkie to present, with focus on work of most seminal directors from Armenian Republic, as well as various voices from worldwide diaspora. Concurrently scheduled with course C266. P/NP or letter grading.

170. Armenian Poetry, 1880 to 1930. (4) Lecture, three hours. Required: course 1C or 4C. Examination of process behind creation of range and variety of poetic expression that developed in new literary formats and genres of what became standard modern Eastern and Western Armenian language in second half of 19th century Special attention to crafting of central poetic voices and individual consideration to poetic consideration to poetic and aesthetic, continuity and innovation under impact of modernism, and employment of poetic structure as medium for expression of deeper philosophical texts read in original language. P/NP or letter grading.

171. Variable Topics in Armenian Studies. (4) Lecture, three hours. Examination of major issues in Armenian studies. May be repeated for maximum of 16 units with topic and/or instructor change. P/NP or letter grading.

M172. Medieval Armenian Art. (4) (Same as Art History M118A.) Lecture, three hours. Examination of cultural and historical impact of Armenian miniature paintings. P/NP or letter grading.

M173. Armenian Painting, 17th to 20th Century. (4) (Same as Art History M118B.) Lecture, three hours. Overview of development of modern Armenian painting out of its roots in 17th and 18th centuries. P/NP or letter grading.

188. Variable Topics in Armenian. (4) Lecture, four hours. Departmentally sponsored experimental or temporary courses, such as those taught by visiting faculty members. May be repeated for credit with topic change. P/NP or letter grading.

189. Advanced Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to undergraduate lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.
199HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to upper-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

197. Individual Studies in Armenian. (2 to 4) Tutorial, one hour. Limited to juniors/seniors. Individual intensive study, with scheduled meetings to be arranged between faculty member and student. Assigned reading and tangible evidence of mastery of subject matter required. May be repeated for credit. Individual contract required. P/NP or letter grading.

199. Directed Research or Senior Project in Armenian. (2 to 4) Tutorial, one hour. Limited to juniors/seniors. Supervised individual research or independent study under guidance of faculty mentor. Coursing paper or project required. May be repeated for credit. Individual contract required. P/NP or letter grading.

Graduate Courses

230A-230B-230C. Elementary Classical Armenian. (4–4–4) Lecture; course 230A is requisite to 230B, which is requisite to 230C. Introduction to grammar of classical literary language (5th to mid-19th century) and guided readings in narrative prose texts. Letter grading.


232A-232B-232C. Advanced Classical Armenian. (4–4–4) Lecture, three hours. Requisite: course 231A or 231B or 231C. In-depth reading and linguistic analysis of texts related to Yezidiane of 6th to 8th century and early Jewish and Christian authors. Course may be taken independently for credit. Letter grading.

250A-250B. Seminars: Armenian Literature. (4–4) Seminar, three hours. Selected topics from various periods of Armenian literature. May be repeated for credit. S/U or letter grading.

251. Armenian Literature and Canon Formation. (4) Lecture, four hours. Discussion of fundamental themes and genres around which Armenian literary tradition evolved and modalities by which this has been transformed in course of last two centuries as result of exposure to European thought and expressive forms. Concurrently scheduled with course C151. S/U or letter grading.

252. Modern Armenian Drama as Vehicle for Social Critique. (4) Lecture, four hours. Readings of selected plays from 1686 to 1992 from three main genres of traditional, sacred, and modern drama and featuring works by most significant Armenian playwrights, with focus on their role as commentators on contemporary mores and as agents for social reform. Concurrently scheduled with course C152. Letter grading.

253. Art, Politics, and Nationalism in Modern Armenian Literature. (4) Lecture, four hours. Examination of role of literature in modern Armenian society in service to cause or causes, as propaganda for various ideologies, as art for art’s sake, etc. Exploration of contrasting aesthetics implicit in these differing interpretations. Concurrently scheduled with course C153. P/NP or letter grading.

255. Issues in Armenian American Literature and Culture. (4) Lecture, four hours. Preparation: reading knowledge of modern Eastern and Western Armenian. Theoretical and informed exploration of some of most salient questions related to Armenian American community as reflected in its literature and other cultural artifacts in interaction with its pluralistic American am-bience. Concurrently scheduled with course C155. Letter grading.

266. Armenian Film and Culture. (5) Lecture, six hours. Requisite: course 1C or 4C. Overview of development of Armenian cinematography from first talkie present, with focus on work of most seminal direc-tors from Armenian Republic, as well as various voices from worldwide diaspora. Concurrently scheduled with course C166. S/U or letter grading.

596. Directed Individual Study. (2 to 8) Tutorial, to be arranged. May be repeated for credit. S/U or letter grading.


110C. Readings in Biblical Hebrew. (4) Lecture. Requisite: courses 110A, 110B. Continuation of course 110B. Readings of prose texts from Hebrew Bible, particularly from Former Prophets (Joshua-Kings). Introduction to certain aspects of historical grammar of biblical Hebrew and translation of variety of texts from different historical periods of Hebrew language, including texts from Ar-chaic, Standard, and Late periods. Understanding of basic grammatical and syntactic patterns of Hebrew sentence structure.

111A. Israeli Society through Hebrew Song and Video. (4) Lecture, three hours; laboratory, one hour. Requisite: course 1C. Use of contemporary Israeli song and video to explore Israeli collective imagination and various Israeli sociocultural issues to familiarize students with differences of aspects of daily life and popular culture, while teaching them multiple speech acts in both formal and informal contexts and enriching their Hebrew vocabulary and its retention. P/NP or letter grading.

111B-111C. Conversational Hebrew. (3–3) Lecture, two hours; laboratory, one hour. Requisite: course 111A. Course 111C is requisite to 111B. Vocabulary used in daily life, different speech acts in both formal and informal contexts, and discussion of sociocultural issues using different kinds of media, such as video, Internet, and newspapers. P/NP or letter grading.

112. Readings in Modern Scholarly Hebrew. (2) Seminar, two hours. Requisite: course 102C. In-depth reading and discussion of selected scholarship articles in modern Hebrew for various disciplines: Bible study, Jewish history and folklore, sociology, and literary criticism. Development of student proficiency in vocabulary, terminology, and ideas in these fields while enhancing comprehension of complex syntactical structures in Hebrew. May be repeated for credit. P/NP or letter grading.

M113. Contemporary Israeli Short Stories/Novellas and Films in English. (5) (Same as Jewish Studies M113.) Lecture, three hours; laboratory, two hours. Exploration of Israeli short stories/ Novellas and films (translated into English) written since mid-1980s that use, each to varying degree, postmodernist tech-niques to undermine predominance of modernist-Zionist narrative. Recycling and reexamination of Israeli condition and Zionist condition; discussion about legitimacy of meta-narratives to redefine blurred out-line of Israeli identity and subvert its underpinning for-mative myths. They simultaneously display loss of faith in representative dimension of cultural exchange, including ability of texts to penetrate its hidden meaning. Using periphery discourses, these texts strive to change modernist aesthetic and power para-digm. P/NP or letter grading.


121. Hebrew Bible with Medieval Commentaries. (4) Lecture, three hours. Requisite: course 103C. Hebrew Bible with the commentaries of Rashi, Ibn Ezra, and/or Nahmanides. May be repeated for maximum of 16 units. Letter grading.

130. Rabbinic Texts. (4) Lecture, three hours. Requi-sites: courses 103A, 103B, 103C. Readings in Mishnah, Talmud, and/or Midrash. May be repeated for credit.


H20. Modern Hebrew Poetry and Prose. (4) Lecture, three hours. Requisites: courses 103A, 103B, and 103C, or equivalent knowledge of Hebrew. Study
of major Hebrew writers of past 100 years. May be repeated for credit. Concurrently scheduled with course C240. Letter grading.

170. Dead Sea Scrolls. (4) Lecture, three hours. Requisite: course 110C. Readings in Hebrew scrolls from Dead Sea, with focus on grammar, paleography, and biblical interpretation. May be repeated for credit. P/NP or letter grading.

180A-180B. Survey of Hebrew Grammar. (4—4) Lecture, three hours. Requisites: courses 102A, 102B, 102C. Descriptive and comparative study of Hebrew grammar: phonology and morphology. Topics include development of Hebrew language from biblical times to present day, its relation to Arabic and other Semitic languages, and extension in Israel of Dead Sea Scrolls. May be repeated for credit. P/NP or letter grading.

189FL. Special Studies: Readings in Hebrew. (2) Seminar, two hours. Requisite: course 102C. Students must be concurrently enrolled in an affiliated main course. Primary readings and advanced training in Hebrew. Add to required course in Hebrew to enrich and augment work assigned in main course, including reading, writing, and other exercises in Hebrew. P/NP or letter grading.

189HC. Honors Contracts. (1) Tutorial, three hours. Limited to 20 students. Designed as adjunct to undergraduate lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

199. Directed Research or Senior Project in Hebrew. (2 to 4) Tutorial, one hour. Limited to juniors/seniors. May be repeated independently for credit. P/NP or letter grading. Concurrently scheduled with course C140. Letter grading.

240. Modern Hebrew Poetry and Prose. (4) Lecture, three hours. Requisites: courses 103A, 103B, and 103C, or equivalent knowledge of Hebrew. Study of major Hebrew writers of past 100 years. May be repeated for credit. Concurrently scheduled with course C140. Letter grading.


596. Directed Individual Study. (2 to 8) Tutorial, to be arranged. May be repeated for credit. S/U or letter grading.


Graduate Courses


225. Studies in Dead Sea Scrolls. (2 or 4) Seminar, three hours. Requisite: course 120. Critical study of Dead Sea Scrolls, with attention to history of biblical interpretation and role of Dead Sea Scrolls in formative Judaism. Readings include manuscripts from Dead Sea Scrolls. May be repeated for credit. S/U or letter grading.

230. Rabbinic Hebrew Literature. (4) Seminar, three hours. May be repeated for credit. S/U or letter grading.

M231. Texts in Judeo-Arabic. (4) (Same as Arabic M231.) Lecture, three hours. Requisites: course 102C, Arabic 102C. Reading of Judeo-Arabic texts by major Hebrew writers of past 100 years. May be repeated for credit. Concurrently scheduled with course C240. Letter grading.

180A-180B. Survey of Hebrew Grammar. (4—4) Lecture, three hours. Requisites: courses 102A, 102B, 102C. Descriptive and comparative study of Hebrew grammar: phonology and morphology. Topics include development of Hebrew language from biblical times to present day, its relation to Arabic and other Semitic languages, and extension in Israel of Dead Sea Scrolls. May be repeated for credit. P/NP or letter grading.

240. Modern Hebrew Poetry and Prose. (4) Lecture, three hours. Requisites: courses 103A, 103B, and 103C, or equivalent knowledge of Hebrew. Study of major Hebrew writers of past 100 years. May be repeated for credit. Concurrently scheduled with course C140. Letter grading.


Graduate Courses


225. Studies in Dead Sea Scrolls. (2 or 4) Seminar, three hours. Requisite: course 120. Critical study of Dead Sea Scrolls, with attention to history of biblical interpretation and role of Dead Sea Scrolls in formative Judaism. Readings include manuscripts from Dead Sea Scrolls. May be repeated for credit. S/U or letter grading.

230. Rabbinic Hebrew Literature. (4) Seminar, three hours. May be repeated for credit. S/U or letter grading.

M231. Texts in Judeo-Arabic. (4) (Same as Arabic M231.) Lecture, three hours. Requisites: course 102C, Arabic 102C. Reading of Judeo-Arabic texts by major Hebrew writers of past 100 years. May be repeated for credit. Concurrently scheduled with course C240. Letter grading.

M105C. Bâbâ’i Faith in Iran: 20th-Century Iran and the Bahá’í’s. (4) (Same as Religion M105C.) Lecture, three hours. Readings in English. Focus on history of 20th-century Iran beginning with constitutional revolution, development of Bahá’í sanctuaries, Bábâ’i Inünst, and latter’s relation to reform movements in Iran. May be taken independent of credit. P/NP or letter grading.


M115A-M115B-M115C. Elementary Azeri. (4-4-4) (Same as Turkic Languages M115A-M115B-M115C.) Lecture, five hours. Knowledge of Russian, Turkish, and Azeri helpful. Grammatical competence at elementary level; knowledge of basic facts of Azeri grammar; reading competence with help of dictionary; ability to write simple compositions; basic conversational skill. P/NP or letter grading.

120. Comparative Study of Six Major Persian Poets. (4) Lecture, two hours; discussion, one hour. Preparation: Knowledge of Persian. Lecture, three hours. Readings in English and Persian. Comparative study of six major Persian poets from 10th to 14th century who shaped sense of Persian identity and delineated characteristics of Persian thought and culture. May be repeated for credit with consent of instructor. P/NP or letter grading.

130. Intellectual History of Jews of Persia. (4) Lecture, three hours. Readings in English. Introduction to intellectual history of Jews in Persia by highlighting select areas of Judeo-Persian studies and focusing on various authors and their work. P/NP or letter grading.


132. Intermediate Judeo-Persian Literature and Culture. (4) Lecture, three hours. Enforced requisites: courses 102C, 131. Literary study of Judeo-Persian literature, as segment of Iranian classical literature. Judeo-Persian poetry, drama, and prose in forms of prose verse, compared with their parallel genres in context of Iranian literature. Textual study of Judeo-Persian manuscripts, both print and cursive, and their variations depending on time period or locality. P/NP or letter grading.


141. Persian Analytical Prose. (4) Lecture, three hours. Requirement: course 102C. Study of selected analytical and expository prose texts, with emphasis on philosophy, sciences, literary criticism, and history. May be repeated for credit with consent of instructor. P/NP or letter grading.

142. Persian Popular Ethics. (4) Lecture, three hours. Preparation: Knowledge of major Persian ethics works on popular ethics that have helped shape normative social, cultural, and political values in Iranian civilization. May be repeated for credit with consent of instructor. P/NP or letter grading.

150A-150B. Survey of Persian Literature in English. (4-4) Lecture, three hours. Knowledge of Persian not required. Each course may be taken independently for credit.

161A-161B-161C. Elementary Middle Iranian. (4-4-4) Lecture, three hours. Preparation: knowledge of Persian desirable. Course 161A is requisite to 161B, which is requisite to 161C. Study in grammars and texts of Middle Iranian languages (e.g., Middle Persian, Parthian, Sogdian). May be repeated for credit with consent of instructor. P/NP or letter grading.

163. Archaeology of Iran. (4) (Same as Ancient Near East CM163.) Study of ancient Iran from 10000 BC to 1900 AD. (4) Lecture, four hours. Introduction to archaeological and historical monuments and sites of Iran from earliest periods to early 20th century. Examination of emergence of early Iranian villages, formation of cities and their development and expansion throughout late Sasanian and early Islamic periods to preindustrial era in early years of past century. Study of selection of ancient Iranian sites and cities, from fifth millennium BC to Qajar period, based on relevant archaeological, historical, and geographical sources. Study of archaeology and historical geography of each site or city with aerial views, which reveal rich array of architecture and town planning—from ordinary settlements and vernacular constructions to worldly-known royal and religious monuments. P/NP or letter grading.

169. Civilization of Pre-Islamic Iran. (4) Survey of Iranian culture from the beginning through Sasanian period.

170. Religion in Ancient Iran. (4) Study of religion in Iran from protohistoric periods to the Achaemenid conquest; Indo-Persian background; Zoroastrianism, Manichaeanism, Mahdlatanism.

178. Introduction to History and Culture of Iranian Jews. (4) (Same as History M178 and Jewish Studies M178.) Lecture, three hours. Introduction to political, intellectual, cultural, and socioeconomic status of Iranian Jews. Exploration of history of Iranian Jews from ancient period throughout history, with focus on post-Middle Ages to present time. Topics studied from perspective of Iranian cultural and intellectual history, include identity and status, religious tolerance versus forced conversion, Iranian Jewish emancipation, and dynamic symbios of Iranian Jews and other Iranians. P/NP or letter grading.

188F. Special Studies: Readings in Iran. (2) Seminar, two hours. Requirement: course 102C. Students must be concurrently enrolled in affiliated main course. Primary readings and advanced training in Iranian. Additional work in Iranian to enrich and augment work assigned in main course, including reading, writing, and other exercises in Iranian. P/NP or letter grading.

189. Advanced Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to undergraduate lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

189HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Seminar, three hours. Varying topics on Elamite, Achaemenid, Arsalac, and Sassanian history. May be repeated for credit. Individual contract required. P/NP or letter grading.

190. Directed Research or Senior Project in Iran. (2 to 4) Tutorial, one hour. Limited to juniors/seniors. Supervised individual research or investigation under direction of faculty member. May be repeated for credit. Individual contract required. P/NP or letter grading.

197. Independent Studies in Iran. (2 to 4) Tutorial, one hour. Limited to juniors/seniors. Individual intensive study, with scheduled meetings to be arranged between faculty member and student. Assigned reading and tangible evidence of mastery of subject matter required. May be repeated for credit. Individual contract required. P/NP or letter grading.

Graduate Courses

M210. Topics in Ancient Iranian History. (4) (Same as Ancient Near East M210 and History M210.) Seminar, three hours. Varying topics on Elamite, Achaemenid, Arsalac, and Sassanian history. May be repeated for credit. S/U or letter grading.


211. Rumi, Mystic Poet of Islam. (4) Seminar, three hours. Requirement: course 220A or 220B. Study of life and works of Rumi in context of interaction of Sufism and poetic creativity. May be repeated twice for credit.

M222A-M222B. Vedic. (4-4) (Same as Indo-European Studies M222A-M222B and South Asian M222A-M222B.) Lecture, three hours. Preparation: knowledge of Sanskrit equivalent to South Asian 110C. Characteristic of Vedic dialects and readings in Rig-Vedic hymns. Only course M222B may be repeated for credit. S/U or letter grading.


231A-231B-231C. Advanced Middle Iranian. (4-4-4) Lecture, three hours. Requirement: course 161C. Course 231A is requisite to 231B, which is requisite to 231C. Further studies in grammars and texts of Middle Iranian languages (e.g., Middle Persian, Parthian, Sogdian, Khotanese, Bactrian). May be repeated for credit with consent of instructor. S/U or letter grading.


259. Archaeology of Iran. (4) (Same as Ancient Near East CM259.) Lecture, three hours. Designed to introduce undergraduate students to archaeology of Iran from prehistoric to Islamic times. Concurrently scheduled with course CM163. S/U or letter grading.

596. Directed Individual Study. (2 to 8) Tutorial, to be arranged. May be repeated for credit. S/U or letter grading.
Islamic Studies

Lower-Division Courses

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

M20. Introduction to Islam. (5) (Formerly numbered M110.) (Same as Religion M20.) Lecture, three hours, discussion, one hour. Genesis of Islam, its doctrines, and practices, with readings from Qur’an and Hadith; schools of law and theology; piety and Sufism; reform and modernism. P/NP or letter grading.

M115. Islam and Other Religions. (B) (Formerly numbered M50.) (Same as Religion M115.) Lecture, three hours; discussion, one hour. Students gain famil- iarly with histories of interaction between Muslims and non-Muslims in plural societies. Consideration of axis questions such as how does Islam view other religions; how does it situate Islam vis-à-vis its alternatives; what encounters did rapid expansion of Islam bring about in diverse soci- eties; how did Islam and other religions change the world of interreligious relations? Focus on political role of Islamic law, religion, and policies today. Investigation of these questions by conducting microstudies; close readings of sources throughout. P/NP or letter grading.

130. Shi’a in Islamic History. (4) Seminar, three hours; discussion, one hour. Rise and development of Shi’a Islam, its doctrines, and practices; major branches: Twelvers, Ismailis, Zaydis; their contribution to Islamic thought in modern times; current issues in reinterpretation and reform. Letter grading.

151. Islamic Thought. (4) Lecture, 90 minutes; dis- cussion, 90 minutes. Recommended requisite: course M110. Based on original writings of major Islamic thinkers in English translation, provides balanced pic- ture of enormous ideological variety found in contem- porary Muslim world. Examination of representative writings from wide spectrum of modern Islamicintel- lectuals and writers. Letter grading.

189. Advanced Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to undergraduate lecture course. Exploration of topics in greater depth through supplemental read- ings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract re- quired. Honors content noted on transcript. Letter grading.

99. Student Research Program. (1 to 2) Tutorial (su- pervised research or other scholarly work), three hours per week per unit. Entry-level research for lower-divi- sion students under guidance of faculty mentor. Stu- dents must be in good academic standing and en- rolled in minimum of 12 units (excluding this course). Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP grading.

Upper-Division Courses

M107. Islam in West. (5) (Same as Arabic M107 and Religion M107.) Lecture, three hours; discussion, one hour. Acquisition of understanding of basic doctrines and practices of Islam. Survey of history of Islam in West, with focus on U.S. and France. Analysis of is- sues related to growth and development of select- ed Muslim communities in West. Exposure to diverse ex- pressions of Islam through independent research on Muslim communities and institutions in U.S. Develop- ment of strong analytical writing and speaking skills. P/NP or letter grading.

M111. Introduction to Islamic Archaeology. (4) (Same as Art History M119C and Middle Eastern Studies M111.) Lecture, three hours. From earliest monuments of Islam in Arabia and Jerusalem to humble remains of small Egyptian site, broad focus on archaeological and standing remains in central Is- lamic lands in Egypt and Iran, Turkey, North Africa, and Spain. Profound cultural trans- formations occurred from birth of Islam in 7th century to early Ottoman period in 16th and 17th centuries, which are recorded in material records. Assessment of effectiveness of tools afforded by historical archae- ology to aid understanding of past societies. P/NP or letter grading.

M112. Archaeology and Art of Christian and Islamic Egypt. (4) (Same as Art History M112.) Lecture, three hours. Culture of Egypt transformed gradually after Muslim conquest in mid-7th century CE. Ac- cording to several factors such as ceramics, tex- tiles, architectural forms, and building techniques, it is functionally impossible to separate pre-Islamic Chris- tian Egypt from early Islamic Egypt. Although popula- tion may have become largely Muslim by 10th century,

Egypt remained Coptic in many senses even to 14th century and retains sizeable Christian minority to present. Survey of archeological remains and standing architecture of Egypt from 6th to 19th cen- tury, charting changes and continuities in material cul- ture and shifts in Islamic geographic and land use. P/ NP or letter grading.

M115. Islam and Other Religions. (B) (Formerly named M50.) (Same as Religion M115.) Lecture, three hours; discussion, one hour. Students gain famil- iarly with histories of interaction between Muslims and non-Muslims in plural societies. Consideration of axis questions such as how does Islam view other religions; how does it situate Islam vis-à-vis its alternatives; what encounters did rapid expansion of Islam bring about in diverse soci- eties; how did Islam and other religions change the world of interreligious relations? Focus on political role of Islamic law, religion, and policies today. Investigation of these questions by conducting microstudies; close readings of sources throughout. P/NP or letter grading.

197. Individual Studies in Islamic Studies. (2 to 4) Tutorial, one hour. Limited to juniors/seniors. Individual intensive study, with scheduled meetings to be ar- ranged between faculty member and student. As- signed readings and tangible evidence of mastery of subject matter required. May be repeated for credit. Individual contract required. P/NP or letter grading.

199. Directed Research or Senior Project in Islamic Studies. (1 to 4)Tutorial, one hour. Limited to seniors. Supervised individual research or investiga- tion under guidance of faculty mentor. Culminating paper or project required. May be repeated for credit. Individual contract required. P/NP or letter grading.

Graduate Courses

200. Introduction to Islamic Studies. (4) Seminar, three hours. Introduction to various disciplines and methods employed in study of Islamic histories, cul- tures, and societies, with special emphasis on meth- odologies and current theories, and how they may be used and combined by Islamic studies students. Con- tent varies each year. Letter grading.

201. Arabo-Islamic Sciences. (4) Seminar, three hours. Preparation: good reading knowledge of Ar- abic, English, and one other Western language. Com- prehensive coverage of Arabo-Islamic sciences that formed matrix of Islamic education. Survey of most re- cent developments in following disciplines: Arabic lan- guage and literature, Qur’anic sciences, traditions, jurisprudence, theology, and Sufism. Letter grading.

M82. Music and Holocaust: Individual Experience. (5) (Same as Musicology M82.) Lecture, three hours; discussion, one hour. Roles of music during Holocaust and their varied historical and contemporary uses. Music was composed and performed by prisoners in almost every concentration camp; music was means for some individuals to gain favorable treatment, while others utilized it. Experiential exploration of Euro- pean musical culture under Nazi regime (1933-45), con- fusing on how individuals interacted with music throughout Holocaust. Study of some of newest de- velopments in Holocaust music research, including role American and European non-governmental organ- izations played in creation of artistic hubs in campus of southern France. Exploration of cultural repre- sentations of Holocaust in film, and role of music in society’s collective memory. Letter grading.

99. Student Research Program. (1 to 2) Tutorial, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

M67. Popular Jewish and Israeli Music. (5) (Same as Musicology M67.) Lecture, four hours; discussion, one hour. Music of Jews is diverse. With history of several thousand years, Jews experienced different environments in modernity, music in Jewish life covers variety of styles found in many contexts. Exploration of music of Jews within last 100 years, with focus on popular music of Jews in America and Israel. Examination of music in Israel, with focus on songs of land of Israel, Israeli rock, and Muzika Mizrahit (Middle Eastern popular music). P/NP or letter grading.

M82. Music and Holocaust: Individual Experience. (5) (Same as Musicology M82.) Lecture, three hours; discussion, one hour. Roles of music during Holocaust and their varied historical and contemporary uses. Music was composed and performed by prisoners in almost every concentration camp; music was means for some individuals to gain favorable treatment, while others utilized it. Experiential exploration of Euro- pean musical culture under Nazi regime (1933-45), con- fusing on how individuals interacted with music throughout Holocaust. Study of some of newest de- velopments in Holocaust music research, including role American and European non-governmental organ- izations played in creation of artistic hubs in campus of southern France. Exploration of cultural repre- sentations of Holocaust in film, and role of music in society’s collective memory. Letter grading.

99. Student Research Program. (1 to 2) Tutorial, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

M67. Popular Jewish and Israeli Music. (5) (Same as Musicology M67.) Lecture, four hours; discussion, one hour. Music of Jews is diverse. With history of several thousand years, Jews experienced different environments in modernity, music in Jewish life covers variety of styles found in many contexts. Exploration of music of Jews within last 100 years, with focus on popular music of Jews in America and Israel. Examination of music in Israel, with focus on songs of land of Israel, Israeli rock, and Muzika Mizrahit (Middle Eastern popular music). P/NP or letter grading.

M82. Music and Holocaust: Individual Experience. (5) (Same as Musicology M82.) Lecture, three hours; discussion, one hour. Roles of music during Holocaust and their varied historical and contemporary uses. Music was composed and performed by prisoners in almost every concentration camp; music was means for some individuals to gain favorable treatment, while others utilized it. Experiential exploration of Euro-
May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

89HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to lower-division lecture course. Individual study and writing to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

99. Student Research Program. (1 to 2) Tutorial (supervised research or other scholarly work), three hours per week; no course credit. Research for lower-division students under guidance of faculty mentor. Students must be in good academic standing and enrolled in minimum of 12 units (excluding this course). Individual contract required; credit per unit. May be repeated, P/NP grading.

Upper-Division Courses

M113. Contemporary Israeli Short Stories/Novellas and Films in English. (5) Same as Hebrew M113.) Lecture, three hours; laboratory, two hours. Exploration of Israeli novels and short stories (translated into English) written since mid-1980s that use, each to varying degree, postmodernist techniques to undermine predominance of modernist-Zionist narrative. Recollection of Israel's condition and Zionist condition and skepticism about legitimacy of meta-narratives to redefine blurred outline of Israeli identity and subvert its underpinning mythic motives. They simultaneously explore loss of faith in representative dimension of language, including ability of texts to penetrate to its hidden meaning. Using periphery discourses, these texts strive to change modern aesthetic and political paradigms P/NP or letter grading.

M135. Jewish Law. (5) Lecture, three hours. Introduction to Jewish law from biblical literature to modern legal systems. Comparison of Jewish legal systems to modern secular systems and discussion of ethical dimensions of legal systems. P/NP or letter grading.

M140A-140B. American Jewish History. (4–4) Lecture, three hours. Examination of social and cultural history of American Jewish community from its inception to the present, with emphasis on integration of successive immigrants and development of institutions. P/NP or letter grading. 140A. 1654 to 1914; 140B. 1914 to the Present.

M142. Modern Israel: Politics, Society, Culture. (4) Same as Studies M142.) Lecture, three hours. Examination of evolution of Israel—its changing society, volatile domestic and foreign politics, and dynamic culture—from its foundation in 1948 to present. Analysis of political, cultural, and social changes and changing Jewish world. Tension between Israel's conception of itself as Jewish state and fact that it is home to wide variety of ethnic and religious groups and to great diversity of cultures; that it was envisaged as safe haven for Jewish people but has been characterized by insecurity and ongoing war; that, founded as democracy, it contends with multiple strains on its democratic system, such as tensions between Jews and Arabs, secular and religious Jews, and disparate ethnic groups. P/NP or letter grading.

M143. Introduction to Jewish Folklore. (4) Lecture, three hours. Nature of Jewish folklore; narrative, folk art, folk religion, and methods and perspectives used in their analysis. P/NP or letter grading.

M144. Zionism: Ideology and Practice in Making of Jewish State. (4) Same as Middle Eastern Studies M144.) Lecture, three hours. History of Zionism on backdrop of European, world, and Jewish histories from ideological origins to political, cultural, and social foundations of State of Israel. P/NP or letter grading.

M150A-150B. Hebrew Literature in English. (4–4) Lecture, three hours. Each course may be taken independently for credit. M150A. Literary Traditions of Ancient Israel: Bible and Apocrypha. (Same as Comparative Literature M101.) Study of literary culture of ancient Israel through examination of principal compositional strategies of Hebrew Bible and Apocrypha (read in translation). P/NP or letter grading. M150B. Rabbinic Judaism. Topics include emergence of rabbinic Judaism; its original literary forms; rabbinic worldview; forms of medieval rabbinic literature; modern Jewish religious movements and their attitude to rabbinic Judaism.

M151A-151B. Modern Jewish Literature in English. (4–4) Lecture, three hours. Each course may be taken independently for credit. P/NP or letter grading. M151A. Diaspora Literature. (Same as Comparative Literature M156D.) Study of literary responses of Jews to modernity, its challenges, and threats. Readings in texts originally written in Hebrew, Yiddish, German, Russian, French, and Italian. Analysis of formal aspects of each work. 151B. Israeli Literature. Study of translations from Hebrew literature written in Israeli in the 20th century and original facets of Israeli life: social issues, security problems, identity of the state, role of individual. Analysis of formal aspects of each work.

M155. Angels, Demons, and End of World: Magic, Mysticism, and Apocalypses in Jewish Traditions. (4) (Same as Religion M155.) Lecture, three hours. Focus on popular Jewish traditions of magic, mysticism, apocalypse, and various contours of Judaism's texts and their influence. Examination of texts and objects from Hebrew Bible to modern discussions of Kabbalah and end of world, concentrating on Jewish antiquity. Discussion of texts, including Hebrew Bible and rabbinic Jewish texts, New Testament, and rabbinic and later Jewish literature. Discussion of sociopolitical context in order to decipher features and functions of magic, mysticism, and apocalypses in antiquity and modernity. P/NP or letter grading.

M162. Israel Seen through its Literature. (4) (Same as Comparative Literature M162.) Lecture, three hours. Attempt to impart profound understanding of Israel and Israeli thought through a selection of a literary variety of literary texts—stories, novels, and poems—and reading of them in context of their historical backgrounds. P/NP or letter grading.


M175. Modern Israeli Literature Made into Films. (5) Lecture, four hours; discussion, one hour. Reading, analysis, and discussion of modern Israeli literature that was made into films, including literary works of prominent Israeli authors (I.B. Yehoshua, Amos Oz, and Yitzhak Ben Ner) that were translated to English and had filmic adaptations. Letter grading.

M177. Introduction to History and Culture of Iranian Jews. (4) (Same as History M178 and Iranian Studies M182A and Religion M182A.) Lecture, three hours. Introduction to political, intellectual, cultural, and socioeconomic status of Iranian Jews. Exploration of history of Iranian Jews from ancient period throughout history, with focus on post-Middle Ages to present. Studied from perspective of Iranian cultural and intellectual history, including identity and status, religious tolerance versus forced conversion, Iranian Jewish emancipation, and dynamic symbiosis between Iranian Jews and other Iranians. P/NP or letter grading.

M181. Topics in Jewish History. (4) (Same as History M181.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Examination of major Jewish period. May be repeated for maximum of 16 units with topic and/or instructor change. P/NP or letter grading.

M181SL. Jewish Thought, Politics, and Ethics: From Theory to Practice. (4) (Same as History M181SL.) Lecture, four hours; extra-biblical work, two hours. Designed for juniors/seniors. History of Los Angeles, with special emphasis on pivotal roles Jews have played in shaping Los Angeles and role that Los Angeles has played in reshaping of Jewish identities, communities, and cultures. Exploration of themes related to regionalism in American Jewish history, comparative immigration and migration patterns, and frontiers and borders, while providing overview of historical methodologies and interpretation. Examination of biblical and methodological implications of writing history in digital age and learning how to read and analyze these new media works as primary and secondary historical texts. Opportunity to contribute to body of historical work relating to Jewish history through required service work with community partners and development of digital public history projects. P/NP or letter grading.

M182A. Modern Jewish History. (4) (Same as History M182A and Religion M182A.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Exploration of unfolding of Jewish history from rise of Christianity to expulsion of Jews from Spain in 1492. P/NP or letter grading.

M182C. Modern Jewish History. (4) (Same as History M182C.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Study of early modern Jewish history, including with enormously repercussive expulsion of Jews from Spain in 1492, followed by transformations in Jewish society and identity over five centuries in Europe and Middle East, and culminating with nationalism. P/NP or letter grading.

M184A. Jewish Civilization: Encounter with Great World Cultures. (4) (Same as History M184A and Religion M184A.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Experience of Jews in Americas with historical and contemporary. P/NP or letter grading.

M184C. American Jewish Experience. (4) (Same as History M184C.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Experience of Jews in Americas with historical and contemporary. P/NP or letter grading.

M184D. History of Zionism and State of Israel. (4) (Same as History M184D.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Examination of history of State of Israel from 1948 to present. P/NP or letter grading.

M187. Holocaust in Literature. (4) (Same as Comparative Literature M168.) Lecture, three hours. Examination of how Holocaust informs variety of literary and cinema works and raises wide range of aesthetic and moral questions. P/NP or letter grading.

189. Advanced Honors Seminars. (1) Seminar. Three hours. Limited to 20 students. Designed as adjunct to undergraduate lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

189HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to upper-division lecture course. Individual study with lecture instructor explores topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

191. Variable Topics Research Seminars: Jewish Studies. (4) Seminar, three hours. Research seminar on selected topics. Reading and development of culminating project. May be repeated for credit. P/NP or letter grading.
Middle Eastern Studies

Lower-Division Courses

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

M50A. First Civilizations. (5) Same as Ancient Near East M50A. Lecture, three hours; discussion, one hour. Survey of great civilizations of ancient Near East—Egypt, Israel, and Mesopotamia—with attention to emergence of writing, monotheism, and urban societies. Letter grading.

M50B. Origins of Judaism, Christianity, and Islam. (5) Same as Ancient Near East M50B and Religion M50.) Lecture, three hours; discussion, one hour. Examination of three major monotheisms of Western cultures—Judaism, Christianity, and Islam—historically and comparatively. Development, teachings, and ritual practices of each tradition up to and including medieval period. Composition and development of various sacred texts, highlighting key themes and ideas within different historical and literary strata of traditions, such as mechanisms of revelation, struggle for religious authority, and common theological issues such as origin of evil and status of nonbelievers. Letter grading.

M50C.W. Making and Studying Modern Middle East. (3) Same as Anthropology M67W.) Lecture, two hours. Lecture, three hours; discussion, one hour. Requisite: English Composition 3. Survey of modern Middle Eastern cultures through readings and films from Middle East and North Africa. Satisfies Writing II requirement. Letter grading.

89. Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to lower-division lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

89HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to upper-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for credit with topic change. P/NP or letter grading.

Upper-Division Courses

M111. Introduction to Islamic Archaeology. (4) Same as Art History M119C and Islamic Studies M111.) Lecture, three hours. From earliest monuments of Islam in Arabia and Jerusalem to humble remains of small enclaves, Islamic architecture and standing remains in central Islamic lands (primarily Syria, Egypt, and Iraq), Turkey, Iran, North Africa, and Spain. Profound cultural transformations occur during the Umayyad and Abbasid caliphate period in 6th through 17th centuries, which are traceable in material records. Assessment of effectiveness of tools afforded by historical archaeology to aid understanding of past societies. P/NP or letter grading.

M112. Archaeology and Art of Christian and Islamic Egypt. (4) Same as Archaeology M112, Art History M118D, and Islamic Studies M112.) Lecture, three hours. Culture of Egypt transformed gradually after Muslim conquest in mid- 7th century CE. According to material evidence such as ceramics, textiles, architectural forms, and building techniques, it is functionally impossible to separate pre-Islamic Christian Egypt from early Islamic Egypt. Although population may have become largely Muslim by 10th century, Egypt remained Christian to 14th century and retains sizeable Christian minority to present. Survey of archaeological remains and standing architecture of Egypt from 6th to 17th century, charting changes and continuities in material culture and shifts in human geography and land use. P/NP or letter grading.

C122. History, Memory, and Identity in Israel. (4) Seminar, three hours. Israeli society was born in effort to reshape images of Jewish past, which had been shaken by many debates over history, recent and ancient events, and how these are represented by historiographical debates and their reflections in range of media to make some sense of ever-changing past, ways in which it shapes political, ideological, and cultural identities in present, and where meeting points are between popular discourse and work historians do. Examination of conflicting readings of past and its representation in Israeli historiography and in shaping of Israeli collective identity. Currently scheduled with course C222. P/NP or letter grading.

M133. Bible and Qur’an. (4) Same as Religion M133.) Lecture, three hours. Survey of Hebrew Bible/ Old Testament, New Testament, and Qur’an to familiarize students with contexts of Judeo-Christian, Judaism, Christianity, and Islam, and sociocultural background from which these multiform texts emerged, and to explore modern themes and consider variety of approaches to scripture, Development of appreciation for role scripture plays in these religious systems and in American culture and society. P/NP or letter grading.

M142. Modern Israel: Politics, Society, Culture. (4) Same as Jewish Studies M142.) Lecture, three hours. Exploration of evolution of Israel—its changing society, volatile domestic and foreign politics, and dramatic changes from 1948 harps to present, in context of global political and cultural change and changing Jewish world. Tension between Israel’s conception of itself as Jewish state and fact that it is home to wide variety of ethnic and religious groups and to great diversity of cultures; that it was envisaged as safe haven for Jewish people but has been characterized by insecurity and ongoing war; that, as6,8176,

M144. Zionism: Ideology and Practice in Making of Jewish State. (4) Same as Jewish Studies M144.) Lecture, three hours; discussion, one hour. History of Zionism on backdrop of European, world, and Jewish histories; from ideological origins to political, cultural, and social foundations of State of Israel. P/NP or letter grading.

177. Variable Topics in Middle Eastern Studies. (4) Lecture, three hours. Variable topics; consult Schedule of Classes for topics to be offered in specific term. May be repeated for credit. P/NP or letter grading.

M178. Variable Topics. (4) Same as Religion M178.) Seminar, three hours. Interdisciplinary approach to some major topics in study of religion and Middle Eastern studies. May be repeated for credit with topic change. P/NP or letter grading.

M179SL. Movement in Art, Philosophy, and Daily Life. (5) Same as Comparative Literature M179SL.) Seminar, three hours; fieldwork, three hours. Exploration of relation between religion and daily life. Only relevant output of brain, irrespective of what may or may not go on inside it, is control over movements. In living animals, sentience or consciousness exists to integrate often complex input and decide on course of action. Similarly, ownership and agency are inseparably associated with biological systems that control our movements. Movements play vital part in constructing psychological, social, and cultural environments that permeate and surround us. Exploration of how humans and animals move, and how movement, as well as limitations of mobility, relate to personal and community identity. P/NP or letter grading.

Graduate Courses

200. Bibliography and Method of Near Eastern Languages and Literatures. (4) Lecture, two hours. Required for MA degree. Introduction to bibliographical resources and training in methods of research in various areas of specialization offered by department. May be repeated for credit. S/U or letter grading.

201. Study of Religion: Theory and Method. (4) Seminar, three hours. Preparation: familiarity with at least two major world religions. Designed for advanced undergraduate and graduate students. Introduction to variety of theories and methods used in academic study of religion. In attempt to demonstrate importance that historical, cultural, and social exigencies play in development of religious traditions, discussion of theories comparatively and in their historical context, with focus on presuppositions and core concepts and implications of each theory. Letter grading.

210. Survey of Afro-Asiatic Languages. (4) Lecture, three hours. Survey of structures and number of representative languages from various major branches of Hamito-Semitic (Afro-Asiatic) language family. S/U or letter grading.

C222. History, Memory, and Identity in Israel. (4) Seminar, three hours. Israeli society was born in effort to reshape images of Jewish past and has been shaken by many debates over history, recent and ancient events, and how these are represented by historiographical debates and their reflections in range of media to make some sense of ever-changing past,
Many paths of discovery at UCLA. P/NP grading.

Discussion of and critical thinking about topics in ancient Near Eastern literature concerning creation of cosmos, origins of mankind, and boundaries between divine and human realms. Answers to questions concerning origins of evil, pursuit of wisdom, expectations for life beyond death, and quest for immortality are all sought in folklore of ancient religions. Directed readings of ancient literatures. S/U or letter grading.

Seminar: Paleography. (4) Seminar, three hours. Provides students with ability to cope with varieties of manuscripts. S/U or letter grading.

Near Eastern Languages

Lower-Division Courses

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illustrating many paths of discovery at UCLA. P/NP grading.

M20. Visible Language: Study of Writing. (5) (Same as Asian M20, Indo-European Studies M20, Slavic M20, and Semitics M20.) Lecture, three hours: discussion, one hour. Consideration of concrete means of language representation in writing systems. Earliest representations of language known are those of Near East dating to end of 7th millennium BC. While literate civilizations of Egypt, Indus Valley, China, and Mesoamerica left little evidence of corresponding earliest developments, their antiquity and, in case of China and Mexico, evident isolation mark these centers as loci of independent developments in writing. Basic characteristics of early scripts, assessment of modern alphabetic writing systems, and presentation of conceptual basis of semantic language representation. Origins and development of early non-Western writing systems. How Greco-Roman alphabet arose in 1st millennium BC and how it compares to other modern writing systems. P/NP or letter grading.

65. Global Time Travel. (5) Lecture, three hours: discussion, one hour. Time travel is our most effective fictional device for asking what past was like, what future will bring, and how our present might look when viewed from a future time perspective. Often associated with Euro-American genre of hard science fiction, time travel is global genre. Study of time travel stories, novels, television productions, and films from variety of periods, regions, and languages in order to explore anxieties genre responds to and other worlds it helps us imagine. Examination of theorists and critics whose work helps explain how time travel interacts with history, narrative, and visibility. P/NP or letter grading.

89. Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to lower-division lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

M287. Central Asian Studies: Discipline, Methods, Debates. (2) (Same as Anthropology M287Q and History M287.) Seminar, two hours. Introduction to study of central Asia as practiced in humanities and social sciences disciplines. S/U grading.

Graduate Courses

CM114. Teaching and Learning of Heritage Languages. (4) (Same as Asian CM124 and Slavic CM114.) Lecture, three hours. Consideration of issues relevant to heritage language learners (HL) and to heritage language (HL) instruction. Readings and discussion on such topics as definitions of HLs and HLs; linguistic, demographic, sociolinguistic, and social/cultural profiles of HLs, particularly HL groups most represented among UCLA students; institutional and instructional and approaches to teaching HLs; impact of student motivation and expectations on HL curriculum and teaching approaches; similarities and differences between HLs and foreign language learners (FLLs) regarding teaching methods and materials; diagnostic testing and needs analysis; use of oral/aural proficiency tests. S/U or letter grading.

Graduate courses in Semitics

CM214. Teaching and Learning of Heritage Languages. (4) (Same as Asian CM224 and Slavic CM214.) Lecture, three hours. Consideration of issues relevant to heritage language learners (HL) and to heritage language (HL) instruction. Readings and discussion on such topics as definitions of HLs and HLs; linguistic, demographic, sociolinguistic, and social/cultural profiles of HLs, particularly HL groups most represented among UCLA students; institutional and instructional and approaches to teaching HLs; impact of student motivation and expectations on HL curriculum and teaching approaches; similarities and differences between HLs and foreign language learners (FLLs) regarding teaching methods and materials; diagnostic testing and needs analysis; use of oral/aural proficiency tests. S/U or letter grading.

CM248. Anthropology and History of Mediterranean. (4) (Same as Anthropology M248 and History M248.) Seminar, three hours. Introduction to historical and anthropological writings about Mediterranean. Draws on variety of classic and contemporary theories, histories, and ethnographies about Mediterranean Sea. Topics include geographical and imaginary boundaries, Mediterranean honor/shame concepts, colonial and post-colonial Mediterranean, Levantinism, thalassocracy, Mediterraneanism, French Mediterraneans, Jewish Mediterranean, colonial and post-colonial sea and migrants and mobilities. Focus on critical history of anthropological study of Mediterranean and scholarly literature that emphasizes southern shores of Mediterrane.

Letter grading.


Upper-Division Courses


140A-140B. Elementary Akkadian. (4-8) Lecture, three hours. Elementary grammar and reading of texts in standard Babylonian.
141. Advanced Akkadian. (4) Lecture, three hours. Advanced Akkadian syntax and grammar; reading of Akkadian historical and literary texts. May be repeated for credit. P/NP or letter grading.

142. Akkadian Literary Texts. (4) Lecture, three hours. Selected readings from Akkadian myths and epics, with introduction to historical tradition of works and their literary structure. May be repeated for credit. P/NP or letter grading.

188. Advanced Honors Seminars. (1) Seminar, three hours. Required of 20 or more students. Designed as adjunct to undergraduate lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

189HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Described as adjunct to upper-division lecture course. Individual study with course lecture to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

197. Individual Studies in Semitics. (2 to 4) Tutorial, one hour. Limited to juniors/seniors. Individual intensive study of subject. Meetings to be arranged between faculty member and student. Assigned reading and tangible evidence of mastery of subject matter required. May be repeated for credit. Individual contract required. P/NP or letter grading.

199. Directed Research or Senior Project in Semitics. (2 to 4) Tutorial, one hour. Limited to juniors/seniors. Supervised individual research or investigation under guidance of faculty mentor. Culminating paper or project required. May be repeated for credit. Individual contract required. P/NP or letter grading.

Graduate Courses

210. Ancient Aramaic Dialects. (4) Lecture, three hours. Required: course 130. Reading of surviving inscriptions and papyri. Texts include Old Aramaic inscriptions, Egyptian Aramaic texts, Qumran Aramaic, and Targumic Aramaic. May be repeated for credit. S/U or letter grading.

215B. Syriac. (4) Lecture, two hours. Morphology and syntax of Syriac language; readings in Syriac translation of Bible and Syriac literature. May be repeated for credit. S/U or letter grading.

220A–220B. Ugaritic. (4–4) Lecture, two hours. Required: Hebrew 102A, 102B. Study of Ugaritic language and texts. Texts include Early Ugaritic and course 220B may be repeated for credit. S/U or letter grading.


230. Seminar: Northwest Semitic Languages and Literatures. (4) Seminar, two hours. May be repeated for credit. S/U or letter grading.

240. Seminar: Akkadian Language. (4) Seminar, two hours. Readings of texts from various dialects of Akkadian; selected problems in linguistic analysis of Akkadian dialects. May be repeated for credit. S/U or letter grading.

240X. Seminar: Akkadian Language. (1) Seminar, two hours. Readings of texts from various dialects of Akkadian; selected problems in linguistic analysis of Akkadian dialects. Course for students who participate regularly in class meetings but without the homework required in course 240. May be repeated for credit. S/U or letter grading.

241. Seminar: Akkadian Literature. (4) Seminar, two hours. Readings of texts from various Akkadian literary genres; selected problems in literary history and stylistic analysis. May be repeated for credit. S/U or letter grading.

241X. Seminar: Akkadian Literature. (1) Seminar, two hours. Readings of texts from various Akkadian literary genres; selected problems in literary history and stylistic analysis. May be repeated for credit. S/U or letter grading.

Turkic Languages

Lower-Division Courses

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

89. Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to lower-division lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

89HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Described as adjunct to lower-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

99. Student Research Program. (1 to 2) Tutorial (supervised research or other scholarly work), three hours per week per unit. Entry-level research for lower-division students under guidance of faculty mentor. Students must be in good academic standing and enrolled in minimum of 12 units (excluding this course). Individual contract required. Consult Undergraduate Research Center. May be repeated for credit. P/NP or letter grading.

Upper-Division Courses

101A-101B-101C. Elementary Turkish. (5–5–5) Lecture, five hours. Course 101A is requisite to 101B, which is requisite to 101C. Grammar, reading, conversation, and elementary composition drills. P/NP or letter grading.


111A-111B-111C. Elementary Uzbek. (4–4–4) Lecture, three hours; laboratory, two hours. Elementary grammar, reading, and composition exercises; elementary conversation.

112A-112B-112C. Advanced Uzbek. (4–4–4) Lecture, three hours; laboratory, two hours. Descriptive Uzbek grammar, reading, and analysis of Uzbek literature and folkloric texts. High-style composition and conversation.


160. Turkish Tradition. (4) Lecture/discussion. Preparation: entrance examination. Survey of cultural history of Turkey, as seen primarily through their literature, from their early history to the present.

165. Islamic Literary Heritage of Central Asia. (4) Lecture, two hours; discussion, one hour. Systematic survey of Islamic documents produced in Turkish and Persian in Central Asia, with reading of primary sources in English translation. Study of special characteristics of Central Asian Islam.


180. Modern Turkish Languages and Peoples. (4) Lecture, three hours. Required of students in Turkish program and recommended for students in Soviet studies. Ethnic and linguistic survey of the Turkish peoples.

189. Advanced Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to undergraduate lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. Letter grading.

189HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Described as adjunct to upper-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

197. Individual Studies in Turkic. (2 to 4) Tutorial, one hour. Limited to juniors/seniors. Individual intensive study, with scheduled meetings to be arranged between faculty member and student. Assigned reading and tangible evidence of mastery of subject matter required. May be repeated for credit. Individual contract required. P/NP or letter grading.

199. Directed Research or Senior Project in Turkic. (2 to 4) Tutorial, one hour. Limited to juniors/seniors. Supervised individual research or investigation under guidance of faculty mentor. Culminating paper or project required. May be repeated for credit. Individual contract required. P/NP or letter grading.

Graduate Courses

210A. Readings in Ottoman I. (4) Lecture, three hours. Examination of printed texts in Ottoman from 19th and 20th centuries to improve student competence to read, transcribe, and translate Ottoman texts. Readings include selections from newspapers, almanacs, travel books, and literary and historical texts. S/U or letter grading.


596. Directed Individual Study. (2 to 8) Tutorial, to be arranged. May be repeated for credit. S/U or letter grading.


Neurobiology

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Scope and Objectives

The Department of Neurobiology is a premier research department and a leading force in neuro-science discovery and education at UCLA and worldwide. Department faculty with diverse research backgrounds in cellular and molecular biology, psychology, and engineering; utilize the most sophisticated technologies available to work in concert with colleagues throughout UCLA and the world to enhance the understanding of the brain and its role in health and disease.

Medical History

Lower-Division Courses

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

99. Student Research Program. (1 to 2) Tutorial (supervised research or other scholarly work), three hours per week per unit. Entry-level research for lower-division students under guidance of faculty mentor. Students must be in good academic standing and enrolled in minimum of 12 units (excluding this course). Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP grading.

Upper-Division Courses

M169. History of Neurosciences. (4) (Same as Medical History M169.) Lecture, one hour; discussion, two hours. Development of neurosciences, especially neuroanatomy and neurophysiology, from Enlightenment era through latter 20th century. Emphasis on fundamental nerve functions, cell communication, and technological, conceptual, and cultural influences that have shaped understanding of brain and nervous system. P/NP or letter grading.

197. Individual Studies in Neurobiology. (2 to 4) Tutorial, to be arranged. Limited to juniors/seniors. Individual intensive study of two or more meetings to be arranged between faculty member and student. Assigned readings and tangible evidence of mastery of subject matter required. May be repeated for credit. Individual contract required. P/NP or letter grading.

199. Directed Research in Neurobiology. (2 to 8) Tutorial, to be arranged. Limited to juniors/seniors. Supervised individual research or investigation under guidance of faculty mentor. Studies in anatomy and related subfields are initiated for training of particular students, which includes reading assignments or laboratory work leading to final oral or written report. May be repeated for maximum of 16 units. Individual contract required. P/NP or letter grading.

Graduate Courses

M200A. Synapses, Cells, and Circuits. (4) (Same as Neuroscience M204.) Lecture, three hours; laboratory, two hours. Fundamental topics concerning subcellular, cellular, and structural organization of nervous system. Specific topic areas include neuronal ultrastructure, cellular neurobiology, neuroanatomy, neural circuitry, and imaging. Letter grading.

M200B. Cell, Developmental, and Molecular Neurobiology. (6) (Same as Neuroscience M201L.) Lecture, six hours. Fundamental topics concerning cellular, developmental, and molecular neurobiology, including intracellular signaling, cell-cell communication, neurogenesis and migration, synapse formation and elimination, programmed neuronal death, and neurotrophic factors. Letter grading.

M200C. Sensory Systems Neurobiology. (4) (Same as Neuroscience M221.) Lecture, two hours; discussion, two hours. Enforced requisite: Physiological Science 225. Recommended: neuroanatomy, neurophysiology, and/or neural systems courses. Designed for neuroscientists, cell biologists, and psychologists. Basic organizational, physiological, and functional principles of sensory systems and how visual information is processed at different levels of nervous system. Structure, microcircuity organization and function of retina, central visual nuclei, and primary cortical areas mediating visual behavior. S/U grading.


Graduate Course

596. Directed Individual Studies in Medical History. (2 to 12) Tutorial, to be arranged. Investigation of subjects in medical history selected by students with advice and direction of instructor. Individual reports and conferences. S/U or letter grading.

Neurobiology

Lower-Division Courses

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

99. Student Research Program. (1 to 2) Tutorial (supervised research or other scholarly work), three hours per week per unit. Entry-level research for lower-division students under guidance of faculty mentor. Students must be in good academic standing and enrolled in minimum of 12 units (excluding this course). Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP grading.

Upper-Division Courses

M169. History of Neurosciences. (4) (Same as Medical History M169.) Lecture, one hour; discussion, two hours. Development of neurosciences, especially neuroanatomy and neurophysiology, from Enlightenment era through latter 20th century. Emphasis on fundamental nerve functions, cell communication, and technological, conceptual, and cultural influences that have shaped understanding of brain and nervous system. P/NP or letter grading.

197. Individual Studies in Neurobiology. (2 to 4) Tutorial, to be arranged. Limited to juniors/seniors. Individual intensive study of two or more meetings to be arranged between faculty member and student. Assigned readings and tangible evidence of mastery of subject matter required. May be repeated for credit. Individual contract required. P/NP or letter grading.

199. Directed Research in Neurobiology. (2 to 8) Tutorial, to be arranged. Limited to juniors/seniors. Supervised individual research or investigation under guidance of faculty mentor. Studies in anatomy and related subfields are initiated for training of particular students, which includes reading assignments or laboratory work leading to final oral or written report. May be repeated for maximum of 16 units. Individual contract required. P/NP or letter grading.

Graduate Courses

M200A. Synapses, Cells, and Circuits. (4) (Same as Neuroscience M204.) Lecture, three hours; laboratory, two hours. Fundamental topics concerning subcellular, cellular, and structural organization of nervous system. Specific topic areas include neuronal ultrastructure, cellular neurobiology, neuroanatomy, neural circuitry, and imaging. Letter grading.

M200B. Cell, Developmental, and Molecular Neurobiology. (6) (Same as Neuroscience M201L.) Lecture, six hours. Fundamental topics concerning cellular, developmental, and molecular neurobiology, including intracellular signaling, cell-cell communication, neurogenesis and migration, synapse formation and elimination, programmed neuronal death, and neurotrophic factors. Letter grading.

M200C. Sensory Systems Neurobiology. (4) (Same as Neuroscience M221.) Lecture, two hours; discussion, two hours. Enforced requisite: Physiological Science 225. Recommended: neuroanatomy, neurophysiology, and/or neural systems courses. Designed for neuroscientists, cell biologists, and psychologists. Basic organizational, physiological, and functional principles of sensory systems and how visual information is processed at different levels of nervous system. Structure, microcircuity organization and function of retina, central visual nuclei, and primary cortical areas mediating visual behavior. S/U grading.


Graduate Course

596. Directed Individual Studies in Medical History. (2 to 12) Tutorial, to be arranged. Investigation of subjects in medical history selected by students with advice and direction of instructor. Individual reports and conferences. S/U or letter grading.

channels and channel blockers, gates, ion pumps and neuronal homeostasis, synaptic receptors, drug-receptor interactions, transmitter release, modulation by second messengers, and sensory transduction. Letter grading.

M200C. Biology of Learning and Memory. (4) (Same as Neuroscience M220 and Psychology M208.) Lecture, four hours. Molecular, cellular, circuit, systems, neuroanatomy, theory, and models of learning and memory. Cross-disciplinary focus on learning and memory to provide integrated view of subject that emphasizes emerging findings that take advantage of novel groundbreaking models. Letter grading.

220. Structural Neurobiology. (2) Lecture, two hours; discussion, one hour. An introduction to molecular structure of chemical, electrical, and mixed synapses as determined by imaging methods such as electron tomography. Comprehensive review of current principles governing synaptic transmission and balanced account of some of most topical areas of field, such as hemifusion, kiss and run, and fast exocytosis. Laboratory sessions review methods for preparing samples through in-depth analysis of imaging strategies. Computer laboratory sessions allow demonstration of data processing and interpretation. Three round table discussions provide forum for further inspiration among students facing any questions or difficulties that may arise from laboratories and lectures. S/U grading.

225. Functional Organization of Visual System. (2) Seminar, three hours. Preparation: basic neuroscience course. Recommended: neuroanatomy, neurophysiology, and/or neural systems courses. Designed for neuroscientists, cell biologists, and psychologists. Basic organizational, physiological, and functional principles of visual system and how visual information is processed at different levels of nervous system. Structure, microcircuity organization and function of retina, central visual nuclei, and primary cortical areas mediating visual behavior. S/U grading.


270. Joint Seminar: Neuroscience Lectures. (1) Seminar, one hour. Formal lectures on current research topics in neuroscience by speakers from national, international, and local neuroscience communities. S/U grading.

M287. Dynamics of Neural Microcircuits. (4) (Same as Neuroscience M287.) Lecture, two hours; discussion, two hours. Development of integrative models in sensory systems. Basic organizational, physiological, and functional principles of neural circuits and modulation of neural activity. Letter grading.
Neurology
David Geffen School of Medicine
C-153 Reed Neurological Research Center
Box 951769
Los Angeles, CA 90095-1769

Neurology
310-825-5521

S. Thomas Carmichael, Jr., MD, PhD (Frances Stark Professor of Neurology), Chair
Charles C. Filippin II, MD, Vice Chair of Education
P. Leia Nghiemphu, MD, Vice Chair of Academic Affairs
Marc R. Nuwer, MD, PhD, Vice Chair of Finance and Administration
Christopher DeGiorgio, MD, Vice Chair, Olive View-UCLA
Mark J. Morrow, MD, Vice Chair, Harbor-UCLA
Claude G. Wasterlain, MD, Vice Chair, VA
Greater Los Angeles Healthcare System
Jeffrey Saver, MD, Senior Associate Vice Chair

Neurology

Scope and Objectives

Neurology is the medical science dealing with the normal and diseased nervous system. Neurological disorders are often associated with significant disability, morbidity, and mortality. Their higher incidence in association with greater longevity of the population, increased awareness, improved diagnostic methods, and other factors place neurological disorders among the major medical problems today. The Department of Neurology and the Reed Neurological Research Center provide means for a coordinated basic science and clinical research approach to neurological disorders, patient care, and neurological education.

The department instructs medical students throughout the four years. Emphasis in the first year is on basic aspects of neuroanatomy, chemistry, and physiology; in the second year, neurological history taking and neurological examination of afflicted patients are stressed. The third year consists of a clerkship, and the fourth year provides electives in neurology, including an advanced clinical clerkship. Graduate students and postdoctoral candidates are trained in both the basic and clinical laboratories.

For more details on the Department of Neurology and courses offered, see the department website.

Neurology

Lower-Division Courses

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

99. Student Research Program. (1 to 2) Tutorial (supervised research or other scholarly work), three hours per week per unit. Entry-level research for lower-division students under guidance of faculty mentor. Students must be in good academic standing and enrolled in minimum of 12 units (excluding this course). Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP grading.

Upper-Division Courses

188SA. Individual Studies for USIE Facilitators. (1) Tutorial, to be arranged. Enforced corequisite: Honors Collegium 101E. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor to discuss selected USIE seminar topic, conduct preparatory research, and begin preparation of syllabus. Individual contract with faculty mentor required. May not be repeated. Letter grading.

188SB. Individual Studies for USIE Facilitators. (1) Tutorial, to be arranged. Enforced corequisite: course 188SA. Enforced corequisite: Honors Collegium 101E. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor to finalize course syllabus. Individual contract with faculty mentor required. May not be repeated. Letter grading.

188SC. Individual Studies for USIE Facilitators. (2) Tutorial, to be arranged. Enforced corequisite: course 188SB. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor while facilitating USIE 88S course. Individual contract with faculty mentor required. May not be repeated. Letter grading.

199. Directed Research in Neurology. (2 to 8) Tutorial, two hours. Limited to juniors/seniors. Supervised individual research or investigation under guidance of faculty mentor. Culminating paper required. May be repeated for credit. Individual contract required. P/NP or letter grading.

Neuroscience, Undergraduate

Interdepartmental Program
College of Letters and Science
1221 Gonda Center
Box 951761
Los Angeles, CA 90095-1761
Neuroscience Undergraduate IDP
310-206-2349
E-mail contact
Stephanie A. White, PhD, Chair
Christopher S. Colwell, PhD, Vice Chair

Faculty Committee
Scott H. Chandler, PhD (Integrative Biology and Physiology)
Christopher S. Colwell, PhD (Psychiatry and Biobehavioral Sciences)
David L. Glanzman, PhD (Integrative Biology and Physiology, Neurobiology)
Paul E. Mickeycy, PhD (Neurobiology)
Patricia E. Phelps, PhD (Integrative Biology and Physiology)
Mayumi L. Prins, PhD (Neurosurgey)
Kate M. Wassum, PhD (Psychology)
Stephanie A. White, PhD (Integrative Biology and Physiology)

Scope and Objectives

Neuroscience seeks to understand the brain in health and in disease. Topics of fundamental interest include perception, cognition, learning, memory, motor control, and regulation of body function. The undergraduate interdepartmental program seeks to explore the principles and concepts of this broad range of nervous system function at many levels of analysis, including molecular, cellular, synaptic, network, computational, and behavioral.

Neuroscience BS

Capstone Major

Learning Outcomes

The Neuroscience major has the following learning outcomes:

- Generation of testable scientific hypotheses and development of a research plan to test such hypotheses
- Work on research projects independently and in small group settings
- Evaluation and discussion of primary literature
- Evaluation of the validity of hypotheses
- Effective written and oral communication
- Demonstrated creative thinking

Preparation for the Major

Life Sciences Core Curriculum

Required: Chemistry and Biochemistry 14A, 14B, 14BL, 14CL, and 14D, or 20A, 20B, 20L, 30A, 30AL, 30B, 30BL; Life Sciences 7A, 7B, 7C, and 23L; Life Sciences 30A, 30B, and 40 or Statistics 13, or Mathematics 3A, 3B, 3C, and Statistics 10 or 13, or Mathematics 31A or 31AL, 31B, 32A, and Statistics 10 or 13; Physics 1A, 1B, 4AL, and 4BL, or 5A, 5B, and 5C.

Each core curriculum course must be passed with a grade of C– or better, and all courses must be completed with an overall grade-point average of 2.0 or better. Students receiving grades below C– in two core curriculum courses, either in separate courses or repetitions of the same course, are subject to dismissal from the major.

Transfer Students

Transfer applicants to the Neuroscience major with 90 or more units must complete the following introductory courses prior to admission to UCLA: one year of general biology with laboratory for majors, preferably equivalent to Life Sciences 1 and 2, or 7A, 7B, and 7C, one year of calculus, one year of general chemistry with laboratory for majors, one semester of organic chemistry with laboratory, and one statistics course. A second semester of organic chem-
istry or one year of calculus-based physics is strongly recommended but not required for admission.

Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

The Major
The Neuroscience major consists of 10 courses (approximately 43 units). Consult respective department or program sections for course descriptions.

Required Core: Neuroscience M101A (with grade of C– or better for Neuroscience majors), M101B, M101C, 102, Chemistry and Biochemistry 153A. Psychology 115 cannot be substituted for Neuroscience M101A; however, Physiological Science 111A can be substituted.

Elective Options: One course from each of the following three options:


Molecular, Cell, and Developmental Neuroscience: Neuroscience M145, C177, 180, 181, 182, 186, M187, 191C, Physics C186, Physiological Science M106, 121, C126, C127, M145, 146, 147, 174, 175, Psychology 162, or M166.


Capstone Research Options: (1) Neuroscience 101L, (2) Neuroscience C177 and 192C, or (3) Neuroscience 198A and 199B, or 199A and 199B. Students who select the Neuroscience 101L capstone research option must take four upper-division electives, with at least one from each of the three elective options. Students who select the Neuroscience C177 and 192C, 198A and 199B, or 199A and 199B options must take three upper-division electives, one from each elective option.

No more than eight courses may be from any one department. A maximum of 8 units of Neuroscience 198 or 199 in any combination may be applied toward the major. Each course must be taken for a letter grade, and students must have an overall grade-point average of 2.0 or better in all upper-division courses taken for the major.

Honors Program
The honors program provides exceptional Neuroscience majors with the opportunity to do research culminating in an honors thesis. Majors who have completed all preparation courses with a grade-point average of 3.0 or better and an overall GPA of 3.2 or better may apply for admission to the honors program. Applications and program requirements are available in the Neuroscience Undergraduate Office. Students must submit the application before beginning their upper-division honors requirements. After completion of all requirements and with the recommendation of the faculty sponsor and a second reader of the thesis, the chair confers honors at graduation.

Neuroscience Minor
The Neuroscience minor is designed to allow students in other majors an opportunity to explore the interdisciplinary field of neuroscience in a structured and rigorous way, while pursuing a major field of study in another discipline at the same time.

To enter the minor, students must have an overall grade-point average of 2.0 or better and a 2.5 GPA in the prerequisite courses for Neuroscience M101A and M101B.

Nonscience majors wishing to minor in Neuroscience should be aware that preparation courses in chemistry, life sciences, and physics are prerequisites to the upper-division course requirements.

Required Upper-Division Courses (approximately 31 units): Neuroscience M101A, M101B, M101C (5 units each) and four elective courses selected from 101L, 102, 199A and 199B, and from any of the three elective options listed under the Neuroscience major.

A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor.

Each minor course must be taken for a letter grade, and students must have an overall grade-point average of 2.0 or better in the minor. Successful completion of the minor is indicated on the transcript and diploma.

Neuroscience
See the Neuroscience graduate interdepartmental program for graduate courses.

Lower-Division Courses

10. Brain Made Simple: Neuroscience for 21st Century. (4) Lecture, four hours. Preparation: high school background in either biology or chemistry. Not open for credit to students with credit for course M101A (or Molecular, Cell, and Developmental Biology M1175A or Physiological Science M180A or Psychology M117A) or Psychological Science 111A for Neuroscience majors. Lecture, four hours; discussion, 90 minutes. Requisites: Chemistry 145 or 30A (14C may be taken concurrently), Life Sciences 2 or 7C, Physics 1B or 1B or 6B or 6C. Not open for credit to students with credit for Psychological Science 111A. For Neuroscience majors, grade of C– or better is required. Limited to Neuroscience majors. General overview of human nervous system; relation of behavior to underlying motivation, learning, and cognition. P/NP or letter grading.

17. Science of Music. (4) Lecture, three hours; discussion, one hour. General overview of basic principles of neuroscience, cognitive psychology, and psychoacoustics to relate music perception. P/NP or letter grading.

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating diverse aspects of the human experience. P/NP or letter grading.

20. Introduction to Neuroscience Methods. (4) Lecture, four hours; discussion, 90 minutes. Preparation: high school background in either biology or chemistry. Limited to Neuroscience majors. General overview of field of neuroscience to serve as introduction to Neuroscience major. Topics covered include brief history of field, basic neurophysiology and neuroanatomy, research methods, experimental design, data analysis, and career prospects. May not be applied toward elective requirements for major. Letter grading.
higher cognitive function. Development of primate and human brains during past few million years; evolutionary aspects of neuroanatomical structures and effects of behavior and cultural attitudes of modern man. P/NP or letter grading.

M119L. Molecular and Developmental Neurobiology. (4) Same as Psychology 119L. Lecture, three hours. Recommended requisites: courses M101A and M101C (or Psychology 115), Psychology 120A or 120B. Designed for juniors/seniors. Survey of experimental and clinical human neurobiology, with emphasis on higher cognitive functions. P/NP or letter grading.

M119N. Visual System. (4) Same as Psychology 119N. Lecture, three hours. Requisite: course M101A or 111A or consent of instructor. Detailed look into science of sleep. Cellular and molecular mechanisms of falling asleep, many discrete brain structures and circuits control of sleep/wakefulness, and homeostatic regulation of sleep. How our sleep needs shaped by our evolutionary history, age, and gender. Latest insights into question of function of sleep, sleep disorders, changes in memory consolidation and, close association between sleep and metabolism. Sleep disorders are considered as they provide insights into mechanisms underlying sleep. For background on science of sleep and circadian rhythms, completion of Physiological Science C126 is highly recommended. Concurrently scheduled with course CM123, Letter grading.

CM123. Neurobiology of Sleep. (4) Formerly numbered M123.) (Same as Physiological Science CM123.) Lecture, three hours; discussion, one hour. Requisites: courses M101A and 111B or Physiological Science 111A and 111B or consent of instructor. Detailed look into science of sleep. Cellular and molecular mechanisms of falling asleep, many discrete brain structures and circuits control of sleep/wakefulness, and homeostatic regulation of sleep. How our sleep needs shaped by our evolutionary history, age, and gender. Latest insights into question of function of sleep, sleep disorders, changes in memory consolidation and, close association between sleep and metabolism. Sleep disorders are considered as they provide insights into mechanisms underlying sleep. For background on science of sleep and circadian rhythms, completion of Physiological Science C126 is highly recommended. Concurrently scheduled with course CM123, Letter grading.

M135C. Dynamic Systems Modeling of Physiological Processes. (5) Same as Physiological Science M135C.) Lecture, four hours; laboratory, two hours. Examination of art of making and evaluating dynamical models of physiological systems and of dynamical principles inherent in physiological systems. Letter grading.

M145. Neural Mechanisms Controlling Movement. (5) (Same as Physiological Science M145.) Lecture, four hours; laboratory, three hours. Examination of central nervous system organization required for production of complex movements such as locomotion, mastication, and swallowing. P/NP or letter grading.


M161. Pharmacology and Addiction Management. (4) Same as Psychiatry M182.3.) Seminar, four hours. Basic overview of brain function and consideration of some management methods that exist already, and what future may hold. New concepts from series of topics that center and modeling what if scenarios that might alter risks and benefits of different courses of action, based on individual genetic background and other elements of personal history. Exposure to experimental introduction to key principles from science of behavior change, illustrating how important health-related behavioral habits are and how difficult these can be to change and which methods might work. P/NP or letter grading.

161. Advanced Honors Seminars. (4) Same as Psychiatry M182.3.) Seminar, four hours. Basic overview of brain function and consideration of some management methods that exist already, and what future may hold. New concepts from series of topics that center and modeling what if scenarios that might alter risks and benefits of different courses of action, based on individual genetic background and other elements of personal history. Exposure to experimental introduction to key principles from science of behavior change, illustrating how important health-related behavioral habits are and how difficult these can be to change and which methods might work. P/NP or letter grading.

M170. Music and Brain. (4) (Same as Music Industry 118.) Seminar, three hours; outside study, nine hours. Multidisciplinary approach to understanding brain, music, and music perception, performance, and cognition. Students’ natural interest in music serves as springboard for learning basic concepts about how brain works. Focus on specific themes such as music perception, emotion and meaning in music, and creativity. Designed to help students understand methodologies currently used to investigate brain-behavior correlates. Broad understanding of the neural circuits involved in cognitive neuroscience, one of three main subdivisions of neuroscience; introduction to fundamental principles in neurophysiology; psychophysics, and neuroanatomy, whose basic forms foundation for brain imaging, forensic practice, social psychology research, and marketing research; and specific knowledge about brain mechanisms mediating music-related cognitive and emotional functions. Letter grading.


M176. Auditory Neuroscience of Speech Perception and Vocal Communication. (4) (Same as Psychological Science M176.) Lecture, two and one half hours; discussion, 90 minutes. Requisite: course M101A (or Psychology M101A or Psychology M101B). Interdisciplinary approach to understanding how humans and other animals communicate emotion and meaning using sound. Weekly research topics in disciplines of systems neuroscience, cognitive neuroscience, psychoacoustics, and psycholinguistics. Emphasis on fundamental principles in neurophysiology, neuroanatomy, neuroimaging, psychology, and neurobiology. Letter grading.

177. Drugs of Abuse: Translational Neurobiology. (4) Lecture, four hours. Requisite: course M101A. Course ranges from synapse to society. Provides intensive tract on scientific and scientific methods for understanding substance abuse and blends that material with relevant topics such as epidemiology, co-occurring disorders, treatment options, prevention, and public policy. Interdisciplinary content conclusion of course materials to general public. Concurrently scheduled with course C277. Letter grading.

178. Human Electrophenocaphol and Evoked Potentials in Research and Clinical Diagnosis. (4) Seminar, four hours. Enforced requisite: course M101A. Not open for credit to students with credit for course 191A, seminar 1. Emphasis on human electroencephalogram (EEG) and various forms of sensory-evoked potentials. Introduction to number of experimental paradigms that allow for recording of different brain signals from brainstem to cortex. Letter grading.


180. Genetic, Molecular, and Genomic Approaches to Neurodegenerative Diseases. (4) Seminar, four hours. Enforced requisites: courses M101A, M101B. Not open for credit to students with credit for course 191C, seminar 1. In-depth study of genetic, molecular, and genomic techniques for studying nervous system development and disease. Overview of current technologies used to generate mouse models for genetic and phenotypic analysis. Review of technological advances for studying development and diseases. Integrative genomic approaches for identifying and characterizing gene(s) involved in these processes. Emphasis on mouse models, but other model organisms considered as well. Letter grading.

181. Cellular and Molecular Mechanisms of Learning and Memory. (4) Seminar, four hours. Enforced requisite: course M101A. Not open for credit to students with credit for course 191C, seminar 2. Cellular models of learning and memory. Genetic and molecular approaches to learning and memory. Learning and memory deficits in neuropsychiatric diseases. LTP and LTD models. Letter grading.


186. Neural Stem Cells: Biology, Diseases, and Therapies. (4) Lecture, two and one half hours. Preparation: background in biology and biochemistry. Enforced requisite: courses M101A, M101B. Designed for third- and fourth-year Neuroscience majors. Comprehensive coverage of stem cells of nervous systems ranging from developmental biology, involve- ment of stem cells in diseases (e.g., brain tumors, Alzheimer’s, Parkinson’s), and use of stem cells for therapy. P/NP or letter grading.

M167. Neurobiology of Behavior and Discrimination. (4) (Same as Physiological Science M166.) Lecture, four hours. Limited to junior/senior neuroscience, psychological science, and psychology students. Exploration of aspects of marmo- litan brain function that generate preference, bias, and discrimination. Consideration of research at multiple levels of analysis from genetics to neural circuits to behavior. Discussion of societal implications of these research findings, including their relevance to public policies and criminal justice system. Letter grading.

188SA. Individual Studies for USIE Facilitators. (1) Tutorial, to be arranged. Enforced corequisite: Honors Collegium 101E. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor to discuss selected USIE seminar topic, conduct preparatory research, and begin prepara- tion of syllabus. Individual contract with faculty mentor required. May not be repeated. Letter grading.


188SC. Individual Studies for USIE Facilitators. (2) Tutorial, to be arranged. Enforced requisite: course 188SB. Limited to junior/senior USIE facilitators. Indi- vidual study in regularly scheduled meetings with fac- culty mentor while facilitating USIE 88S course. Indi- vidual contract with faculty mentor required. May not be repeated. Letter grading.

189. Advanced Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to undergraduate lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible stu- dents. Honors content noted on transcript. P/NP or letter grading.

189HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. De- signed as adjunct to undergraduate lecture course. In- dividual study with lecture course instructor to explore topics in greater depth through supplemental read- ings, papers, or other activities. May be repeated for maximum of 4 units. Individual contract required. Honors content noted on transcript. Letter grading.
191A-191B-191C. Variable Topics Research Seminars: Neuroscience, (4-4-4) Seminar, three hours. Topics on one or more aspects of neuroscience. Reading, discussion, and development of culminating project. May be applied as elective only in specific area of group 2. Each course may be repeated once for credit. P/NP or letter grading.

192A. Practicum in Neuroanatomy for Undergraduate Assistants. (Seminar, four hours; laboratory, three hours). Limited to neuroscience honors program students. Instruction in principles of clinical and laboratory techniques. Application to case study of human nervous system. May be repeated for credit. P/NP grading.

198A. Lab and Discussion in Neurobiology and Developmental Neuroscience. Enforced requisite: course M101A.

198B. Honors Research in Neuroscience. (Tutorial, 12 hours minimum in laboratory. Requisite: course 198A. Continued reading and research that culminate in honors thesis under direct supervision of faculty member. For departmental honors, students must also take course 191H. Maximum of 8 units of courses 198A, 198B, 199 may be applied toward major. Individual contract required. Letter grading.

199A. Directed Research in Neuroscience. (Tutorial, 12 hours minimum. Enforced requisites: courses 99, M101A. Limited to junior/senior Neuroscience majors and minors with grades of B (3.0) or better. Supervised individual research or investigation under guidance of faculty mentor. Culling paper or project required. Maximum of 8 units of courses 198A, 198B, 199A, 199B may be applied toward major. Individual contract required. In Progress grading (credit to be given only on completion of course 199B).

199B. Directed Research in Neuroscience. (Tutorial, 12 hours minimum. Enforced requisite: course 199A. Limited to junior/senior Neuroscience majors and minors with grades of B (3.0) or better. Continued supervised individual research or investigation under guidance of faculty mentor. Culling paper or project required. Maximum of 8 units of courses 198A, 198B, 199A, 199B may be applied toward major. Individual contract required. Letter grading.

199C. Continued Directed Research in Neuroscience. (Tutorial, 12 hours minimum in laboratory. Enforced requisite: course 198B or 1998B. Limited to junior/senior Neuroscience majors and minors with grades of B (3.0) or better. Continued reading and research that culminate in report under direct supervision of faculty mentor. May not be applied toward major. May be repeated for credit. Individual contract required. Letter grading.

199D. Clinical Research in Neurobiology. (Tutorial, 12 hours minimum. Enforced requisite: course 199B. Limited to junior/senior Neuroscience majors and minors with grades of B (3.0) or better. Continued supervised individual research or investigation under guidance of faculty mentor. Culling paper or project required. Maximum of 8 units of courses 198A, 198B, 199A, 199B may be applied toward major. Individual contract required. Letter grading.

199E. Directed Research in Neuroscience. (Tutorial, 12 hours minimum. Enforced requisite: course 199F. Limited to junior/senior Neuroscience majors and minors with grades of B (3.0) or better. Continued supervised individual research or investigation under guidance of faculty mentor. Culling paper or project required. Maximum of 8 units of courses 198A, 198B, 199A, 199B may be applied toward major. Individual contract required. Letter grading.

NEUROSCIENCE, GRADUATE

Scope and Objectives

The interdepartmental Neuroscience PhD program prepares students for careers in neuroscience research and education. The hallmark of the program is an integrated approach to study of the nervous system, using the multilevel analytical tools of molecular, cellular, systems, and/or behavioral biology, as well as quantitative approaches from the fields of mathematics, physics, and engineering. Students working at one or two analytical levels nevertheless learn to appreciate the methods and advantages of other levels of analysis. Emphasis is both on mechanisms of neural function and the biological basis of disease. Students select their research mentor from the list of all neuroscience faculty at UCLA.

Information on the undergraduate program in this discipline can be found in the Neuroscience undergraduate interdepartmental program section.

Graduate Study

Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Division website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Graduate Degree

The Neuroscience Program offers the Doctor of Philosophy (PhD) degree in Neuroscience.

Neuroscience

See the Neuroscience undergraduate interdepartmental program for more undergraduate courses.

Lower-Division Courses

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

99. Student Research Program. (1 to 2) Tutorial (supervised research or other scholarly work), three hours per week per unit. Entry-level research for lower-division students under guidance of faculty mentor. Students must be in good academic standing and enrolled in minimum of 12 units (excluding this course). Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP grading.
Pathophysiology, training course through UCLA Health and Safety, Study of anatomical locations of and relationships between ascending and descending sensory and motor systems from spinal cord to cerebral cortex. Covers cranial nerves and brainstem anatomy along with anatomy of ventricular and vascular systems of brain. Subcortical forebrain areas covered in detail. Integrated anatomy laboratory includes brain dissections and overview of tools for MRI analysis.

M204. Synapses, Cells, and Circuits. (4) (Same as Neurobiology M202A.) Lecture, three hours; laboratory, two hours. Critical discussion and analysis of cellular and molecular organization of nervous system. Specific topic areas include neuronal ultrastructure, cerebral neurobiology, neuroanatomy, neural circuitry, and imaging. Letter grading.


M206. Neuroengineering. (4) (Same as Bioengineering M250B and Electrical and Computer Engineering M255.) Lecture, four hours; laboratory, three hours; outside study, five hours. Requisites: Mathematics M204, Introduction to principles and technologies of bioelectricity and neural signal recording, processing, and stimulation. Topics include bioelectricity, electrophysiology (action potentials, local field potentials, intracellular and extracellular recording, microelectrode technology, neural signal processing (neural signal frequency bands, filtering, spike detection, spike sorting, stimulation artifact removal), brain-computer interfaces, deep-brain stimulation, and prosthetics. Letter grading.

207. Integrity of Scientific Investigation: Education, Research, and Career Implications. (2) Discussion, two hours. Designed for graduate students. Discussion of topics related to ethical conduct of scientific investigation, with emphasis on critical thinking. Topics include scientific misconduct, mentoring, data ownership, authorship, peer review, use of animals and humans in biomedical research, conflicts of interest, technology, and scientific integrity. S/U grading.


215. Variable Topics Research Literature Seminars: Neuroscience. (1) Seminar, two hours. Critical discussion and analysis of current literature for various neuroscience research topics. Only one topic may be taken twice for credit and applied toward neuroscience graduate requirements. S/U grading.

M220. Biology of Learning and Memory. (4) (Same as Neurobiology M220G and Psychology M220B.) Lecture, four hours. Cellular, circuital, systems, neuroanatomy, theory, and models of learning and memory. Cross-disciplinary focus on learning and memory to provide integrative view of subject that emphasizes discoveries that take advantage of novel groundbreaking models. Letter grading.

M221. Sensory Systems Neuroscience. (4) (Same as Neurobiology M200C.) Lecture, two hours; discussion, two hours. Fundamental topics in sensory systems neuroscience: transduction and olfaction, audition, vision, and somatosensory system. Letter grading.

CM223. Neurobiology of Sleep. (4) (Same as Physiology SC223A.) Lecture, three hours; discussion, one hour. Detailed look into science of sleep. Cellular and molecular mechanisms of falling asleep, many discrete brain structures involved in control of sleep wakefulness, and homeostatic regulation of sleep. How our sleep needs shaped by our evolutionary history, age, and gender. Latest insights into function of sleep, critical role sleep plays in memory formation and, close association between sleep and metabolism. Sleep disorders are considered as they provide insights into mechanisms underlying sleep. For background on science of sleep and circadian rhythms, completion of Physiology M210D is highly recommended. Concurrently scheduled with course CM123. Letter grading.


240. Phenotypic Measurement of Complex Traits. (4) Lecture, three hours. Preparation: background in human genetics helpful. Integrative approach to understanding gene to behavior pathways by examination of levels of organization across systems (cell, brain, organism), across species (invertebrate, fly, mouse, human), and throughout development across varying environmental milieus. Using examples from human disorders such as schizophrenia and Alzheimer’s disease, linking of these diverse approaches in genetic research to map out integrative system of understanding basis of complex human behavior. Emphasis is on understanding of methods used at each level of phenotype analysis, along with major resources that can be accessed to gain insight to gene-behavioral links. Letter grading.

245. Optical Approaches in Neurosciences. (4) Lecture, four hours. State-of-art, light-microscopy-based approaches in neuroscience. Background material on basic optical principles and microscopic design, as well as practical demonstrations. Optical approaches commonly used in study of nervous system, including imaging modalities such as two-photon microscopy, methods for imaging and stimulating neural activity, and advanced microscopy approaches such as FRET and FLIM. Letter grading.

250. Neural Development and Repair. (4) Lecture, four hours. Special training in neural development and repair. Each module offers different research topic and promotes understanding of human diseases, treatments, and unmet needs for future research. Letter grading.

255. Functional Organization of Behavior. (2) Lecture, two hours. Changes in neuronal properties supporting changes in learned behavior. Different types of learning. Role of neurotransmitters and second messengers in changing ion channels of neurons to support associative learning versus long-term potentiation of neurotransmission. Topics include physiology of neurotransmission, and Brainstorm, perform some common statistical tests on the extracted features and infer causal relationships, and navigate through state-of-the-art analyses and interpret results. Brainscaping, perform on brain, with emphasis on quantitative understanding and data interpretation and features common to modalities. X-ray computed tomography, magnetic resonance imaging, positron emission tomography, magnetoencephalography, transcranial magnetic stimulation, near infrared imaging. Letter grading.

M261A-M261B-M261C. Basic Concepts and Techniques in Neuroscience. Graduate / 637
understand use of EEG in research and applications, explain current limitations and controversies of EEG, and navigate through state-of-the-art analyses and applications of EEG. Letter grading.

M287. Dynamics of Neural Microcircuits. (4) (Same as Neurobiology M287.) Lecture, two hours; discussion, two hours. Development of integrative understanding of neural microcircuits that underlie specific functions of sensory processing, generation, and coordination of motor activity, as well as generation and modulation of neural rhythms. Letter grading.

375. Teaching Apprentice Practicum. (1 to 4) Seminar, to be arranged. Preparation: apprentice personnel employment as teaching assistant, associate, or fellow. Teaching apprenticeship under active guidance and supervision of regular faculty member responsible for curriculum and instruction at UCLA. May be repeated for credit. S/U grading.

596. Directed Individual Study or Research. (2 to 12) Tutorial, to be arranged. S/U grading.

597. Preparation for PhD Qualifying Examinations. (2 to 12) Tutorial, to be arranged. S/U grading.

599. Dissertation Research for PhD Candidates. (2 to 12) Tutorial, to be arranged. Designed for students requiring special instruction or time to work on dissertation. S/U grading.

Neurourgery

**Lower-Division Courses**

19. Fiat Lux Freshman Seminars. (1) Seminar: one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

99. Student Research Program. (1 to 2) Tutorial (supervised research or other scholarly work), three hours per week per unit. Entry-level research for lower-division students under guidance of faculty mentor. Students must be in good academic standing and enrolled in minimum of 12 units (excluding this course). Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP grading.

**Upper-Division Course**

199. Directed Research in Neurosurgery. (2 to 8) Tutorial, two hours. Limited to juniors/seniors. Supervised individual research or investigation under guidance of faculty mentor. Culpating paper required. May be repeated for credit. Individual contract required. P/NP or letter grading.

Nursing

**School of Nursing**

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**Nursing**

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Dean Lynn V. Doering, PhD, FAHA, FAAN, Associate Dean, Academic and Student Affairs

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Felicia S. Hodge, DrPH

Jian Li, MD, PhD

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Mary Rez-Kanna, NP, PhD

Christine Samuel-Nakamura, RN, FNP-BC, PhD

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**Lecturers**

Theresa A. Brown, RN, MSN, NP

Mary M. Canobbio, RN, MN, FAAN

Carol Lynn W. Cunningham, RN, PHN, MSN, FNP-C

Barbara L. Demman, RN, MSN, CNS, ACNP

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Mary P. Cadogan, DrPH, GNP-BC, FAAN, FGSA

Catherine L. Carpenter, PhD

**Adjunct Associate Professors**

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Nancy Jo Bush, RN, MSN, PhD, CNL, PHN

Maria E. Ruiz, RN, PhD

Mary Ann Shinnick, RN, PhD, MN, ACNP-BC, CCNS

**Adjunct Professors**

Emma Lyn M. Cuenca, RN, DNP, CCRN, CCS, CNS

John Lazar, RN, PhD, FNP-BC

Mary B. Nelson, RN, CPNP, PhD

Benissa E. Salem, RN, MSN, FNP, PHN

Elisabeth L. Secola, RN, PhD

Elizabeth Anne Thomas, RN, PhD, ANP-BC, COHN-S, FAANOH

**Scope and Objectives**

Neurourgery is a discipline of medicine that provides (1) operative and nonoperative management (i.e., critical care, prevention, diagnosis, evaluation, treatment, and rehabilitation) of disorders of the central, peripheral, and autonomic nervous systems, including their supporting structures and vascular supply; (2) the evaluation and treatment of pathological processes that modify the function or activity of the nervous system, including the hypophys; and (3) the operative and nonoperative management of pain.

As such, neurosurgery encompasses treatment of adult and pediatric patients with disorders of the nervous system—disorders of the brain, meninges, and skull and their blood supply, including the extracranial carotid and vertebral arteries, disorders of the pituitary gland, disorders of the spinal cord, meningos, and vertebral column, including those that may require treatment by spinal fusion or instrumentation, and disorders of the cranial and spinal nerves throughout their distribution.

For more details on the Department of Neurosurgery, see the department website.
nursing practice as nurse practitioners, or clinical specialists, or administrators in a variety of settings and specialized areas of healthcare. The PhD program prepares scholars who do original research, generate new theories, and build the scientific basis for professional nursing practice. Research is both basic and applied.

Undergraduate Study

The Nursing (Prelicensure) major is a designated capstone major. Students complete a clinically based scholarly project that is approved by a designated faculty member. In completing the capstone course, students should select, evaluate, and apply appropriate theory and research findings concerning individual- and population-based health promotion and disease prevention, biobehavioral and health systems, and social environmental, cultural, and human diversity to the nursing process. They should utilize the nursing process to promote biopsychosocial health and disease prevention and to support the resources of culturally diverse clients and families in community- and/or hospital-based settings.

Through their work, students should demonstrate effective communication and collaboration skills with clients and their families, research participants, other health professionals, colleagues, and policymakers. They also should identify practice-based problems and hypotheses and critique research on issues of importance to nursing and health care delivery; participate effectively in relevant professional and community organizations and/or interest groups; demonstrate leadership as a member of the health team to plan, manage, and evaluate care of individuals, families, and communities for culturally diverse populations; and practice their work based on the principles of ethics, social justice, and law.

Nursing BS Prelicensure

Capstone Major

The focus of the prelicensure program is on the preparation of nurse generalists with special skills in primary, secondary, and tertiary prevention and care within an individual- and population-based context while developing the basics for a strong leadership role. Students learn the art and science of nursing using the latest research findings to guide their practice.

Learning Outcomes

The Nursing major has the following learning outcomes:

• Selection, evaluation, and application of appropriate theory and research findings concerning individual- and population-based health promotion and disease prevention, biobehavioral and health systems, social environmental, and cultural and human diversity to the nursing process with a variety of clients, families, and communities from diverse cultural backgrounds

• Use of the nursing process to promote biopsychosocial health and disease prevention, and to support client resources in community and hospital settings

• Demonstrated effective communication and collaboration skills with clients, families, research participants, health professionals, and policymakers

• Identification of practice-based problems and hypotheses, and critique research on issues of importance to nursing and health care delivery within hospital and community settings

• Effective participation in professional and community organizations and interest groups relevant to health care delivery and modification of nursing standards and practices in keeping with current trends

• Demonstrated leadership as a health team member to plan, manage, and evaluate care of individuals, families, and communities

• Practice of hospital- and community-based nursing using principles of ethics, social justice, and law

Admission

The School of Nursing strives to attract a culturally and ethnically diverse student population. Admission is designed for freshman students and transfer students at the junior level. Freshman applicants are expected to fulfill the University of California admission requirements. Transfer applicants are expected to fulfill the Intersegmental General Education Transfer Curriculum (IGETC). Students must have a grade of C or better in each requisite course and an overall grade-point average of 3.5 or better.

Two recommendation forms and a written statement of purpose are also required. Diverse life experiences, including previous employment, volunteer work, and community service that reflect leadership, responsibility, multicultural involvement, multilingual abilities, and other unusual skills and knowledge are evaluated for all applicants. Consideration is also given to students who are socially, economically, and educationally disadvantaged. Completed applications should reflect clearly identified career goals and documentation of potential for nursing practice.

Preparation for the Major

Required: Chemistry and Biochemistry 14A, 14B, 14C, Communication 1 or 10, Life Sciences 7A, 7C, Mathematics 3A or 31A, Microbiology, Immunology, and Molecular Genetics 10, Nursing 3, 10, 13, 20, 50, 54A, 54B, Psychology 10.

Transfer Students

Transfer applicants to the Nursing major with 90 or more units must complete the following introductory courses prior to admission to UCLA: calculus, communications, human anatomy, human physiology, inorganic and organic chemistry, cells, tissues, and organs, microbiology, molecular biology, and introductory or general psychology.

Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

The Major

Required: Biostatistics 100A, Nursing 115, 150A, 150B, 152A, 152B, 160, 161, 162A through 162D, 163, 164, 165, 168, 171, 173W, 174, and completion of a capstone senior scholarly project (course 169). Transfer students must complete Nursing 10, 20, 50, 54A, and 54B on entry. Students may request to pursue a minor in a related field if the coursework can be completed within the 216-unit limit.

The curriculum at UCLA must be completed with a minimum overall grade-point average of 2.0 (C) or better in all courses taken while a student in the School of Nursing.

Each required nursing course in the school must be completed with a grade of C or better (C– grade is not acceptable).

Graduate Study

Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Division website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Graduate Degrees

The School of Nursing offers the Master of Science in Nursing (MSN) degree, the Master of Science (MS) and Doctor of Philosophy (PhD) degrees in Nursing, and the Doctor of Nursing Practice (DNP) degree. A concurrent degree program (Nursing MSN/Management MBA) is also offered.

Nursing

Lower-Division Courses

3. Human Physiology for Healthcare Providers. (5) Lecture, three hours; laboratory, two hours. Basic understanding of human physiological processes, with emphasis on applications to patient evaluation and care. Concepts underlying normal function and how alterations in these normal functions can affect body systems. Knowledge and understanding of these normal human processes is basic to providing quality nursing care. Examination of system variations across lifespan. Letter grading.

10. Introduction to Nursing and Social Justice I. (2) Lecture, two hours. Within context of history of nursing, introduction to practice of nurses, including role of advocacy. Discussion of effective use of self as professional nurse in relation to ethics and human dignity, veracity, beneficence, confidentiality and professional values (altruism, autonomy, human dignity, integrity, and social justice) in relation to nursing practice throughout history in health/illness and end-of-life contexts. Letter grading.

13. Introduction to Human Anatomy. (5) Lecture, three hours; laboratory, two hours. Structural presentation of human body, including musculoskeletal, nervous, circulatory, respiratory, digestive, renal, and reproductive systems. Laboratory uses virtual cadaver dissection and examination. Letter grading.

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

20. Introduction to Nursing and Social Justice II. (2) Lecture, two hours. Requisite: course 10. Advanced discussion on history of nursing, with focus on role of contemporary nursing in relation to ethics and social justice. Analysis of ethical principles (justice, autonomy, veracity, beneficence, confidentiality) and professional values (altruism, autonomy, human dignity, integrity, and social justice) in relation to nursing practice throughout history in health/illness and end-of-life contexts. Evaluation of social, cultural, legal,
mechanism of action, pharmacokinetics, adverse ef-

pharmacology for undergraduate nursing students, four hours. Requisites: courses 54A, 54B. Clinical

tions across lifespan are addressed. Letter grading.

primary prevention strategies as they pertain to health

numbers 152W.) Lecture, two hours. Introduction to

systems is provided as rationale for nursing di-

99. Student Research Program. (1 to 2) Tutorial (su-

452. Pathophysiology II. (2) Lecture, two hours. Requ-

150A. Fundamentals of Professional Nursing I. (4)

150B. Fundamentals of Professional Nursing II. (4)

152A. Hospital Care of Medical-Surgical Patients and

162A. Foundational Concepts for Tertiary Preven-

8. Lecture, four hours; clinical, six hours. Requisite: course 162A. Pathophys-

164. Maternity Nursing. (5) Lecture, three hours; clinic-

54A. Pathophysiology I. (3) Lecture, three hours. Requisites:

54B. Pathophysiology II. (2) Lecture, two hours. Requ-

152B. Health Promotion: Nutrition in Culturally Di-

115. Pharmacology and Therapeutics. (5) Lecture, four hours. Requisites: courses 54A, 54B. Clinical

151A. Psychiatric Mental Health Nursing. (5) Lec-

51C. Tertiary Prevention and Care of Complex Cul-

C. Tertiary Prevention and Care of Complex Medical-Surgical Patients. (6) Lecture, four hours (10 weeks); clinical, 24 hours (five

163. Nursing Care of Geriatric Patients and Fami-

162B. Tertiary Prevention and Care of Medical-Sur-

162C. Tertiary Prevention and Care of Complex Med-

practice. Letter grading.

152A. Hospital Care of Medical-Surgical Patients and

practice roles in health care systems through case

acute care settings for Nursing BS students. Em-

nurse in acute care settings. Letter grading.

Letter grading.

and wellness across lifespan, using population-based

and middle-aged adults; elderly who live independently in communities or within institutions. Analysis of influ-

152B. Health Promotion: Nutrition in Culturally Di-

problems in communities and institutions. Letter grading.

Letter grading.

54A. Pathophysiology I. (3) Lecture, three hours. Requisites:

54B. Pathophysiology II. (2) Lecture, two hours. Requ-

54B. Pathophysiology II. (2) Lecture, two hours. Requ-

150A. Fundamentals of Professional Nursing I. (4)

150B. Fundamentals of Professional Nursing II. (4)

150B. Fundamentals of Professional Nursing II. (4)

51C. Tertiary Prevention and Care of Complex Med-

151A. Psychiatric Mental Health Nursing. (5) Lec-

51C. Tertiary Prevention and Care of Complex Med-

151A. Psychiatric Mental Health Nursing. (5) Lec-

wellness across lifespan, using population-based

54A. Pathophysiology I. (3) Lecture, three hours. Requisites:

54B. Pathophysiology II. (2) Lecture, two hours. Requ-

54B. Pathophysiology II. (2) Lecture, two hours. Requ-

Letter grading.

Letter grading.

Letter grading.

Letter grading.

Letter grading.
interventions, and communication concepts as applied to childbearing families, with application of nursing process, evidenced-based practice, problem-solving strategies, and critical thinking. Supervised practicum experience within setting of multidisciplinary team, focusing on application of theory to clinical interpretation of assessment and diagnostic data for purpose of planning, implementing, and evaluating nursing care for maternity/newborn patients. In- termediate roles, health maintenance, health promotion, and management of symptoms in this population. Letter grading.

165. Pediatric Nursing. (5) Lecture, three hours; clinical, three hours (courses 160, 162B). Nursing assessment and management of acute, chronic, critical, and emergent illnesses in infants, children, and adolescents with emphasis on social, cultural, and developmental influences. Integration of basic knowledge of pathophysiology, diagnostics, pharmacology, therapeutic interventions, and family-centered care concepts as applied to care of infants, children, and adolescents. Application of nursing process, evidence-based practice, and problem-solving and critical-thinking strategies to improve patient safety, quality, and health outcomes. Supervised practicum experience within multidisciplinary teams, focusing on clinical interpretation, assessment, and diagnostic data for purpose of planning, implementing, and evaluating nursing care for children, infants, and adolescents. Letter grading.

166. Advanced Leadership and Role Integration. (5) Lecture, five hours. Requisites: courses 161, 162C, 163, 164, 165. Leadership and management theories and models, resource allocation and management, delegation and empowerment, feedback, conflict resolution, healthy work environments, legal and ethical aspects of professional practice, evaluation of professional practice, patient safety and quality improvement, accreditation process for health care systems, and contemporary issues in workplace. Emphasis placed on integration of all professional role behaviors, application of research, evidence-based practice, and leadership-management development of students as transactors from student role to that of practicing professional nurse. Focus placed on preparation for National Council Licensure Examination (NCLEX). Letter grading.

169. Clinical Internship: Integration. (12) Clinical, 36 hours. Requisites: courses 161, 162C, 163, 164, 165. Supervised practicum experience within clinical setting as part of interdisciplinary health care team. Focus is on integration of theory in clinical setting, interpretation of assessment and diagnostic data for purpose of planning, implementing, and evaluating course of care for patients, both as individuals and cohorts. Students complete quality improvement project that contributes to unit’s goals and objectives. Students implement advanced-level assessment, health maintenance, and management of symptomatology across lifespan. P/NP grading.

171. Public Health Nursing. (6) Lecture, three hours; clinical, nine hours. Requisites: courses 161, 162C, 163, 164, 165. Theoretical content focuses on population-based approach to public health nursing in relation to health promotion and disease prevention at level of individuals, families, communities, and systems. Clinical practicum concentrates on population-based practice, focus on communities, populations, and systems, both domestically and globally. Letter grading.

173W. Introduction to Nursing Research and Writing II. (Formerly numbered 173J) Lecture, five hours. Requisite: English Composition 3. Introduction to planning research project based on simple question. Review of components of research activities: specific aims and study purposes, variable definition, sample selection, study design, data collection tools, data analysis, and ethical conduct in research studies. Examples of research used as models to demonstrate steps of research process as related to nursing practice. Emphasis on comprehension of research terminology and concepts that are part of each step of research process. Students critique published research. Study by example of relationship between theory and nursing research. Satisfies Writing II requirement. Letter grading.

174. Physical Assessment. (4) Lecture, three hours; laboratory, three hours. Requisites: courses 3, 13. Designed to provide in-depth research and synthesis of physical assessment skills and knowledge covering lifespan. Individual study, use of audiovisual aids, physical assessment skills practiced in laboratory, and required text are mandatory. Letter grading.

175. Physical Assessment for Advanced Practice. (4) Lecture, three hours; laboratory, three hours. Comparison of physical assessment skills and knowledge covering lifespan. Emphasis on history-taking related to general health status and specific complaints, as well as detailed physical examination techniques. Individual study, use of audiovisual aids, physical assessment skills practiced in laboratory, and required text are mandatory. Letter grading.

188. Special Topics in Nursing. (4) Lecture, three hours; discussion, one hour. Limited to junior/senior Nursing majors. Departmentally sponsored experimental or temporary courses, such as those taught by visiting faculty members. May be repeated for credit. P/NP or letter grading.

196. Research Apprenticeship in Nursing. (2 to 4) Tutorial, four hours per week per unit. Limited to juniors/seniors. Entry-level research apprenticeship for upper-division students under guidance of faculty mentor. May be repeated for credit. Individual contract required. P/NP or letter grading.

197. Individual Studies in Nursing. (2 to 4) Tutorial, one hour. Limited to junior/senior Nursing majors. Individual intensive study with scheduled meetings to be arranged between faculty member and student. As signed reading and tangible evidence of mastery of subject matter required. May be repeated for credit. Individual contract required. P/NP or letter grading.

199. Directed Research or Senior Project in Nursing. (2 to 4) Tutorial, two hours. Limited to juniors/seniors. Supervised individual research or investigation under guidance of faculty mentor. Culminating paper or project required. May be repeated for credit. Individual contract required. P/NP or letter grading.

Graduate Courses


202. Philosophy of Nursing Science. (4) Lecture, four hours. Focus on philosophy of nursing science by exploring general philosophical thought that underpin epistemological assumptions about knowledge. Examination of philosophical concepts that shape discipline of nursing in relation to their influence on scientific reasoning methods and design of both quantitative and qualitative, used by nurse scientist to create new knowledge. Analysis of contemporary schools of thought (modern and postmodern) in relation to nursing scholarship as well as role of nurse scientist as leader in policy development in greater health care milieu. Letter grading.

203A. Basic Statistics and Fundamentals for Analysis. (4) Lecture, four hours. Preparation: one upper-division statistics course. Introduction to applied statistics, including design, analysis of variance, correlation techniques, and regression. Sample size calculations, parametric versus nonparametric tests, and concepts of database design, management, and statistical techniques, and regression. Sample size calculations, parametric versus nonparametric tests, and concepts of database design, management, and statistical techniques. Letter grading.

203B. Statistical Approaches for Complex Phenomena. (4) Lecture, four hours. Requisite: course 203A. Use of multiple linear regression, including model validation, discriminant function analy-
ysis of psychometrics, reliability, and internal validity of research instruments in relation to outcomes in nursing research. Letter grading.

209. Human Diversity in Health and Illness. (4) Lecture, four hours. Human diversity in response to illness that nurses diagnose and treat, centering on culture and human diversity research associated with diverse orientations related to ethnicity and gender. Provides conceptual base that nurses can use in clinical practice, research, teaching, and administration. Letter grading.

210A. Critical Review of State of Science in Nursing Research. (3) Lecture, three hours. Requisite: doctoral standing or consent of instructor. In-depth exploration of state of science, biological, psychological, vulnerable populations, and biobehavioral research topics. Students explore research on particular phenomena, analyze current and historical scholarly findings in literature, critique significance of focus on this phenomenon for nursing science, identify crucial findings in literature, critique significance of focus on exploration of state of science for health service, biobehavioral, vulnerable populations, and health services research. Letter grading.

210B. State of Science in Nursing: Critical Synthesis of Literature. (3) (Formerly numbered 210C.) Lecture, three hours. Survey of conceptual and theoretical foundations and current knowledge in systematic review of research literature, and provide recommendations for future nursing research in biologic, biobehavioral, vulnerable populations, and health services research. Letter grading.

211. Women's Health Primary Care. (2 to 4) Lecture, three hours; discussion, one hour. Theory and research on assessment and management of women's health issues across the life span. Clinical topics include gynecology, family planning, pregnancy, and postpartum care, with emphasis on health promotion of women during reproductive years in primary care settings. Letter grading.

212. Family Healthcare Perspectives. (2) Lecture, two hours. Overview of conceptual frameworks related to contemporary family structure and functioning, with particular focus on health. Family is defined broadly to include nontraditional families; consideration of cross-cultural views of families as well. Identification of limitations of current theory and research related to family structure and applicability of current knowledge to various problems encountered in care of families. Letter grading.

213. Worker Health and Safety: Role and Theory. (4) Lecture, four hours. Adult/gerontology primary care nurse practitioner role, including strategies for initiating and managing the nurse practitioner's role. Letter grading.


218A. (4) Lecture, four hours. Synthesis and evaluation of organizational theory in leadership and management of healthcare organizations, with emphasis on organizational structure, processes, and outcomes. Letter grading.

218B. (4) Lecture, four hours. Requisite: course 218A. Focus on understanding and management theories in relation to strategic planning and management, changing care delivery systems, human and financial resource management, decision making, management information systems, professional practice, and meeting accreditation and legal standards. Letter grading.

218C. (4) Lecture, four hours. Requisite: course 218B. Project management, organizational communication, governance, development, and diverse relationships within organizations, risk management, liability, and ethics of administration decision making. Emphasis on issues affecting local, national, and international healthcare management. Letter grading.


220. Theories of Instruction and Learning in Nursing. (3) Lecture, two hours. Emphasis on research on assessment and management of women's health issues across the life span. Clinical topics include gynecology, family planning, pregnancy, and postpartum care, with emphasis on health promotion of women during reproductive years in primary care settings. Letter grading.

221. Transcultural Assessment Model. Examination of psychometrics, reliability, and internal validity of research instruments in relation to outcomes in nursing research. Letter grading.

222. Seminar: Aging Research. (1 to 2) Seminar, two hours. Preparation: completion of first-year coursework. Discussion and conceptualization of gerontological nursing concepts within context of specialty areas of research (acute care, oncology, occupational health, and gerontological nursing). Provides opportunities for students to integrate gerontological nursing concepts into their everyday diagnostic and therapeutic approaches and to examine state of science in their areas of focus. Core faculty from all specialty areas participate in discussions. May be repeated for maximum of 10 units. S/U grading.

227. Ethnogeriatric Nursing. (4) Lecture, three hours. Requisite: course 209. Identification of unique content related to minority aging using Giger and Davidhizar's Conceptual Framework. Examination of transcultural nursing viewed as culturally competent practice that is both client centered and research focused. Exploration of difference between Eurocentric legal and geroethnic legal views of health care to ethnically and racially diverse elders. In-depth examination of issues related to conducting research with elders who are racially and ethnically diverse in various healthcare settings. Study design for conducting research, issues surrounding informed consent of minority elders, and data collection techniques, including critique and use of data collection instruments used in community and healthcare settings, behavioral observations, interviews, and surveys. Letter grading.

228. Research Methods for Aging Populations. (4) Lecture, three hours. Requisites: courses 204, 205A, 205B, 205C. Corequisite: course 228A. Quantitative and qualitative methods of conducting research related to conducting research with eld ers in variety of healthcare settings. Study designs for conducting research in community and long-term care settings, issues surrounding informed consent, planning for mortality and morbidity, data collection techniques for frail elders, including use of assessment tools used in community and long-term care settings, behavioral observations, interviews, and surveys, and statistical analysis techniques related to missing data, longitudinal data analysis, clustering, and repeated measures. Letter grading.

229. System-Based Healthcare I, II, III. (1–1–1) Seminar, two hours. System-based healthcare where students focus on context of medical decision making, including team, hospital, culture, politics, economics, and public health. Emphasis on practice setting, behavioral observations, interviews, and surveys, and statistical analysis techniques related to missing data, longitudinal data analysis, clustering, and repeated measures. Letter grading.

230A. Advanced Pathophysiology I. (3) Lecture, three hours. Requisites: courses 3, 13, or equivalent taken within last three years. Course 230A is requisite to 230B. In-depth examination of general pathophysiologic processes that underlie human illness and disease across all body systems including cellular adaption, fluid and electrolyte balance, acid-base balance, immunity, inflammation, infection, wound healing, genetics, neuroregulation and regulation, somatosensory and pain processing, stress and disease, and activity and fatigue regulation. Detailed study and analysis of manifestations of, and responses to, pathophysiologic processes that underlie human illness and disease, with detailed study of these in major body systems. Examination of manifes-
tions of, and responses to, processes of cellular and molecular pathology at cellular, tissue, system, and human levels. Letter grading.

231. Advanced Pathophysiology for Advanced Practice Registered Nurses. (4) Lecture, four hours. In-depth examination of pathophysiological mechanisms that underlie human health and disease, with detailed study of these in major body systems. Analysis of manifestations of, and responses to, processes of cellular and molecular pathology at extracellular, system, and human levels. Letter grading. Letter grading.

242B. Biobehavioral Foundations of Neuropsychiatric Nursing Care. (4) Lecture, four hours. Biologic and behavioral research from variety of disciplines, including nursing, for application to treatment of neuro-psychiatric disorders, in within U.S. and beyond. Exploration of research under-derlying treatment interaction in cognitive, affective, and affective dysfunctions, with emphasis on developing a biobehavioral nursing approach. Letter grading.

245. Theoretical Foundations of Clinical Nurse Specialist Practice. (4) Lecture/discussion, four hours. Theoretical foundations of clinical nurse specialty practice roles in healthcare systems through case-study analysis, with focus on application to clinical practice settings which include culturally diverse populations. Letter grading.

246. Pediatric Primary Care for Family Nurse Practitioners. (4) Lecture, four hours. Requisite: course 206. Preparation of nurse practitioners to assume responsibility for health promotion and illness prevention, and maintenance and management of common developmental, behavioral, acute, and chronic health problems of infants, children, and adoles-centes in primary healthcare settings. Presentation of condition or disease, etiology and incidence, clinical finding, differential diagnosis, pharmacologic and treatment management, complications, and prevent-ive and patient education measures. Examination of primary child health delivery model reliant on evidence-based knowledge, practice protocols, consul-tation, referral, and community resources. Letter grading.


239A-239B-239C. Adult/Gerontologysy Primary Healthcare for Advanced Practice Registered Nurses I, II, III, (4-4-4) Lecture, four hours. Requi-sites: courses 200, 224, 231. Course 239A is requisite to 239B, which is requisite to 239C. Assessment, di-agnosis, and management of common episodic and chronic adult health problems and conditions, including urgent care, for family and adult/gerontologysy primary care nurse practitioners. Application and eval-uation of evidence-based interventions and clinical guidelines in diverse adult populations (late adolescent through old age). Analysis of health promotion, maintenance, and restoration approaches in special populations, including developmental, cultural, gender, life-stage perspectives, and functional impair-ment. Letter grading. Letter grading.

242F. Biobehavioral Foundations of Neuropsychiatric Nursing Care. (4) Lecture, four hours. Biologic and behavioral research from variety of disciplines, including nursing, for application to treatment of neuro-psychiatric disorders, in within U.S. and beyond. Exploration of research under-derlying treatment interaction in cognitive, affective, and affective dysfunctions, with emphasis on developing a biobehavioral nursing approach. Letter grading. Letter grading.

252A. Health Promotion: Growth and Development in Culturally Diverse Populations. (Formerly numbered 252.) Lecture, two hours. Introduction to primary prevention strategies as they pertain to health and wellness across lifespan, focusing population-based approach to nursing care of diverse populations. In-cludes priorities in reproductive health including issues related to contraception and parenting; well-child care, school-age health, and chronic illness prevention strategies for young and middle-aged adults and el-derly who live independently in communities or within institutions. Analysis of influence of overarching political, societal, and governmental systems within U.S. Letter grading.


254A. Theoretical Foundations of MSN/MECN Role and Fundamentals of Professional Nursing Lecture/Clinical Skills Practicum II. (4) Lecture, three hours; laboratory, three hours. Focus on theoretical foundations of primary, secondary, and tertiary pre-vention as they relate to nursing care management in acute care settings for master’s entry clinical nurse (MECN) practice roles in health care systems through case-study analysis, with focus on application to clinical practice settings which include culturally diverse populations. Demonstration of application of relevant theories to clinical nurse specialty practice roles in healthcare systems through case-study analysis, with focus on application to clinical practice settings which include culturally diverse populations. Letter grading. Letter grading.

254B. Theoretical Foundations of MSN/MECN Role and Fundamentals of Professional Nursing Lecture/Clinical Skills Practicum II. (4) Lecture, three hours; laboratory, three hours. Enforced requisite: course 254A. Review of student knowledge of practice of professional nursing as theory-based goal-directed method for assisting patients to meet basic human needs at various levels of health continuum, with emphasis on application of relevant theories to master’s entry clinical nurse (MECN) practice roles in healthcare systems. Expansion of communication skills, interdisciplinary communication and collaboration, interpersonal relationships, cultural com-petence, and nursing decision making as they relate to clinical decision-making strategy essential to practice of professional nursing. Learning experiences in nursing skills labora-tory and in clinical settings. Letter grading.


256. Secondary Prevention. (4) Lecture, four hours. Review of evidence-based and evidence-guided secondary prevention screening strategies for early detection of disease to reduce morbidity and mortality across lifespan and to develop nursing care interventions. Use of integrated conceptual frameworks addressing individual, family, commu-nity, health care systems factors, social environmental systems, and policies to identify factors influencing screening and resulting clinical decision-making in order to adapt plans for care. Nursing interventions for promoting screening address barriers and facilitators, controversies, as well as utilize existing strengths and social support mechanisms for intervention. Discus-sion and application of specific micro-level factors including screening for physical health and mental health disorders along with associated behavioral fac-tors and macro-level, built environment influences. Letter grading.

257. Professional Role Issues in Advanced Practice Registered Nursing. (3) Lecture, three hours. Requi-sites: course 418A or 438A or 439A. Assessment of or-ganizational, legal, ethical, and healthcare policy is-sues in relation to delivery of healthcare services by advanced practice registered nurses in evolving healthcare system. Letter grading.

258. Healthcare Systems/Organizations. (3) Lecture, three hours. Analysis of evolving healthcare de-livery systems in terms of effects of policy, economic factors, structure and financing of organizations, char-acteristics of patients/populations, and services pro-vided, all of which shape reform in relation to role and practice of clinical nurse leaders. Letter grading.

259. Health Care Policy. (3) Lecture, three hours. Requisites: for MECN students, courses 266, 268, 269; for dual NP/MECN students, courses 245, 269, 445. Analysis of health care policies and how policies impact patient outcomes, clinical practice, health care delivery, and clinician well-being. Concepts related to policy development, formulation, implementation, and evaluation, and how they affect political processes, and stakeholder involve-ment in policy decision making and implementation. Development of understanding of increasing levels of

286. Leadership in Health Care Systems. (4) Lecture, four hours. Requisites: courses 250, 465A, 465B. Discussion of use of systems theory in providing patient-centered value-added care. Health care practitioners lead interprofessional teams to identify ways to transform care delivery to coordinate and deliver quality, cost-effective patient care. Discussion of different modes of organizing nursing care with micro-levels of health care delivery to macro-levels of health care systems; managing care within multidisciplinary team framework; promoting effective teamwork that enhances patient outcomes, improves staff efficiency, and reduces costs. Emphasis on system theory, problem solving and decision making, nursing care delivery models, delegations, and team strategies in relation to clinical nurse leader, satisfies course requirement for CNL certification. Letter grading.


298. Variable Topics in Nursing. (4) Lecture, three hours; discussion, one hour. Variable topics; consult Schedule of Classes for topics to be offered in specific term. May be repeated for credit. S/U or letter grading.


295A. Grant Writing I: Scientific Proposal Development. (3) Seminar, three hours. Requisites: courses 202, 205A, 206A, 210A, 210B, Biostatistics 100B. Introduction to grant writing, with focus on preparing application for National Student Research Award (NSRA) or similar award. Discussion of requirements of various extramural and specialty organization funding sources and identification of evaluation criteria. Emphasis on role of external funding to facilitate doctoral and post-doctoral research, research activities, and professional development. Letter grading.

295B. Grant Writing II: Scientific Proposal Development. (4) Seminar, four hours. Requisites: courses 202, 205A, 206A, 210A, 210B, 295A, Biostatistics 100B. Designed to develop proposals to request for proposals from federal, state, or other extramural funding sources. Incorporation of requirements of various extramural and specialty organization funding sources and identification of evaluation criteria. Emphasis on role of external funding to facilitate doctoral and post-doctoral research, research activities, and professional development. Letter grading.

295C. Nursing Science Seminars. (2) Seminar, two hours. Requisite: course 295A. Introductory to grant writing, with focus on preparing applications for National Student Research Award. Discussion of requirements of various extramural and specialty organization funding sources, and evaluation criteria identified. Role of external funding to facilitate doctoral and post-doctoral research, research activities, and professional development. S/U grading.

M298. Interdisciplinary Response to Infectious Disease Emergencies: Nursing Perspective. (4) Same as Community Health Sciences M256, Medicine M256, and Oral Biology M256.) Lecture, three hours, one discussion. Designed to instill in professional students ideas of common emergency health protection policies and strategies with specific attention to bioterrorism. Exploration of tools to help students prevent, detect, and intervene in infectious diseases. Discussion of emerging infections also attended by students in Schools of Dentistry, Medicine, and Public Health during weeks two through five. Letter grading.

299A. Ethical Conduct in Research. (2) Seminar, two hours. Examination of historical and current issues of ethical integrity at each stage of research process in relation to conflicts of interest, data sharing, responsible authorship, data management, and handling of misconduct in research with both human and animal subjects. Systematic instruction on ethical and responsible conduct of research and protection of research subjects as scientists create their own application for funds and conducting the research. Letter grading.

299B. Nursing Research Mentorship. (1) Seminar/ discussion, one hour; research/laboratory, three hours. Requisites: courses 202, 205A, 206A, 206B, 207, 208, 210A, 210B, 295A, Biostatistics 100A, 210A. Special topics course for nurse scientists who have completed required coursework and are preparing to advance to doctoral candidacy. Discussion topics range from identifying areas of research/laboratory experiences, and engagement in planning for and evaluation of students’ mentored experiences on weekly basis. Letter grading.

299C. Nursing Research/Laboratory Experiences. (4) Seminar/discussion, one hour; research/laboratory, three hours. Requisites: courses 202, 206, 295A, 295B. Students and research/laboratory-based experiences to assist students to prepare for careers as scientists, with focus on research methodology and mentorship. S/U grading.

299D. Nursing Education Seminar. (2) Seminar, two hours; discussion, one to two hours. Seminar to assist students to prepare for careers in academic settings, with focus on teaching and educational theory. Letter grading.

375. Teaching Apprentice Practice. (1 to 4) Seminar, to be arranged. Preparation: apprentice personnel employment as teaching assistant, associate, or fellow. Teaching apprenticeship under active guidance and supervision by nurse practice faculty responsible for curriculum and instruction at UCLA. May be repeated for credit. S/U grading.


402. Clinical Scholarship for Evidence-Based Practice. (3) Lecture/seminar, three hours. Requisite: doctoral standing. Develops DNP students with skills to critically appraise and translate evidence into practice. Evidence-based practice appraisal frameworks are used to promote understanding of scientific information and support critical decision-making in health care. Students learn to formulate clinically relevant focused question(s) that guide their DNP project proposal. Letter grading.

403. Organizational and Systems Leadership for Quality Improvement. (3) Lecture/seminar, three hours. Requisite: doctoral standing. Provides interdisciplinary background in sciences of quality improvement and patient safety within health care settings. Addresses history and evolution and theories and thought leaders, current quality of care issues, eliminating health disparities, culturally and linguistically appropriate services, research and innovation, intervention strategies, and instruments, as well as analysis of quality management system models in health care. Evaluation of principles of change theory, strategic planning, organizational culture, program development and improvement, quality movement and its role on DNP leader in developing and leading clinical quality and safety initiatives. Letter grading.

404. Analytical Methods for Evidence-Based Practice. (3) Lecture/seminar, three hours. Requisite: doctoral standing. Advanced concepts on research methods and measurement strategies that are applicable to use and evaluate advanced practice nurse role to access various sources including research, quality improvement initiatives, and information technology origins to achieve improvements in care delivery and practice. Letter grading.

405. Communication and Ethics for DNP Practice. (3) Lecture/seminar, three hours. Introduction to organizational leadership and ethics context of interdisciplinary practice in complex health care systems. Letter grading.

406. Clinical Prevention and Population Health. (3) Lecture/seminar, three hours. Requisite: doctoral standing. Enables DNP students to integrate, synthesize, and apply key concepts introduced in previous coursework in order to incorporate core components into practice. Evidence-based clinical preventive service and health promotion, health systems and policy, and population health and community aspects of practice are emphasized through focus on clinical practice and population health. Letter grading.


409. Health Care Policy for Advocacy in Health Care. (3) Seminar, three hours. Requisite: doctoral standing. Designed to prepare DNP graduates and committed to leadership role in health policy. Students gain principles, skills, and knowledge to advocate for patients, profession, and health care systems gained through analysis of existing policies, programs, and guidelines that govern health care services and practice. Within ethical framework, discussion of issues of equity, health disparities, access to care, and quality of care. Letter grading.

410. Dissemination and Translation of Clinical Scholarship for DNP Practice. (3) Lecture/seminar, three hours. Requisite: doctoral standing. Students develop DNP competency through presentation of their DNP scholarly project, self-reflection through career plan, and critical evaluation of their DNP program. Letter grading.
411. Information Technology for Nursing Practice. (2) Lecture, two hours. Requisite: doctoral standing. Prepares students to obtain knowledge and skills related to information technology and patient care technology. Prepares DNP graduates to apply new knowledge, manage individual and aggregate information, and assess efficacy of patient care technology appropriate to specialized area of practice. Allows students to use information technology/system resources to implement decision-making initiative, support practice administrative decision-making. Students gain ability to demonstrate conceptual and technical skills to develop and execute plan involving data extraction from practice systems and databases. Letter grading.

414A-414B. Clinical Practicum: Adult/Gerontology Acute Care Oncology Nurse Practitioners. (8–9) Clinic practicum, 16 hours (course 414A) and 22 hours (course 414B). Enforced requisite: course 416C. Course 414A is enforced requisite to 414B. Assessment and therapeutic interventions for selected health problems in acute adult/gerontology populations. Preparation in variety of clinical settings to implement evidence-based practice guidelines and to critically analyze and adapt healthcare interventions based on individualized assessments of individual/family needs. Focus on context of community, cultural awareness, and practice in interdisciplinary teams. Students complete minimum of 80 direct clinical hours. Letter grading.

429B. Family Nurse Practitioner Practicum II. (4) Clinic practicum, 12 hours. Requisite: course 429A. Practitioner Practicum II. Students complete minimum of 80 direct clinical hours. Letter grading.

429C-429D. Family Nurse Practitioner Practicum III, IV. (6–6) Clinic practicum, 12 hours. Requisites: courses 429C and 429D, students complete minimum of 240 direct clinical hours. Letter grading.


438A. Primary Care Pediatric Nurse Practitioner Clinical Practicum I. (3 to 4) Clinic practicum, 10 to 12 hours. Corequisite: course 238A. Comprehensive assessment and anticipatory guidance for children and families to promote child wellness. Clinical practicum, seminar, and other learning activities to demonstrate application and evaluation of evidence-based research and clinical guidelines in promotion of pediatric wellness. Students complete minimum of 100 direct clinical hours. Letter grading.

438B. Primary Care Pediatric Nurse Practitioner Clinical Practicum II. (6–8) Clinic practicum, 10 to 18 hours. Corequisite: course 238B. Second course in three clinical practicum sequence with emphasis on advanced comprehensive assessment, diagnosis, and management of common and developmental and/or behavioral problems. Clinical practicum, seminar, and other learning activities demonstrate application and evaluation of evidence-based research and clinical guidelines in common pediatric illnesses. Letter grading.

438C. Primary Care Pediatric Nurse Practitioner Clinical Practicum III. (6 to 10) Clinic practicum, 20 to 32 hours. Corequisite: course 238C. Third course in three clinical practicum sequence with emphasis on advanced comprehensive assessment, diagnosis, and management of chronic and acute pediatric illnesses in ambulatory setting. Clinical practicum, seminar, and other learning activities demonstrate application and evaluation of evidence-based research and clinical guidelines in pediatric chronic and acute illnesses. Letter grading.


439B. Adult/Gerontology Primary Care Nurse Practitioner Practicum II. (6) Clinic practicum, 18 hours. Requisite: course 439A. Continuation of course 439A for advanced practice nurses, with emphasis on nursing management of acute and chronic health problems in selected populations. Developmental needs of clients in relation to family, social, and cultural structures. Students complete minimum of 80 direct clinical hours. Letter grading.

439C. Adult/Gerontology Primary Care Nurse Practitioner Practicum III. (8) Clinic practicum, 18 hours. Requisite: course 439B. Corequisite: course 239C. Third clinical practicum course for advanced practice nurses, with focus on nursing assessment and interventions for common illnesses and complex patient/family presentations. Analysis, evaluation, and integration of current theory and research to provide basis for development of interventions and treatment for acute and chronic problems across lifespan. Students complete minimum of 160 direct clinical hours. Letter grading.

439D. Adult/Gerontology Primary Care Nurse Practitioner Practicum IV. (6) Clinic practicum, 18 hours. Requisites: courses 239C, 439C. Residency in advanced practice role where students assume primary roles in planning, managing, and evaluating administrative projects. Synthesis of content from course 218D, including assessing community healthcare needs, marketing, media, and political action and healthcare policy. Letter grading.

439E. Family Nurse Practitioner Practicum I. (4) Clinic practicum, 12 hours. Requisites: courses 200, 440. First of five clinical practica designed to prepare family nurse practitioners with knowledge, skills, and competencies necessary to assume role of primary healthcare provider for families and individual patients across lifespan. Use of family-focused framework of care for those who experience common acute and chronic illness, disease, and developmental transitions. Emphasis on health promotion, maintenance, and risk reduction interventions across wide range of diverse populations. Focus on context of community, cultural awareness, and practice in interdisciplinary teams. Students complete minimum of 80 direct clinical hours. Letter grading.

439F. Family Nurse Practitioner Practicum II. (4) Clinic practicum, 12 hours. Requisite: course 439A. Family Nurse Practitioner Practicum II. Students complete minimum of 80 direct clinical hours. Letter grading.

440. First of five clinical practica designed to prepare family nurse practitioners with knowledge, skills, and competencies necessary to assume role of primary healthcare provider for families and individual patients across lifespan. Use of family-focused framework of care for those who experience common acute and chronic illness, disease, and developmental transitions. Emphasis on health promotion, maintenance, and risk reduction interventions across wide range of diverse populations. Preparation in variety of clinical settings to implement evidence-based practice guidelines and to critically analyze and adapt healthcare interventions based on individualized assessments of individual/family needs. Focus on context of community, cultural awareness, and practice in interdisciplinary teams. Students complete minimum of 80 direct clinical hours. Letter grading.

441. Information Technology for Nursing Practice. (2) Lecture, two hours. Requisite: doctoral standing. Prepares students to obtain knowledge and skills related to information technology and patient care technology. Prepares DNP graduates to apply new knowledge, manage individual and aggregate information, and assess efficacy of patient care technology appropriate to specialized area of practice. Allows students to use information technology/system resources to implement decision-making initiative, support practice administrative decision-making. Students gain ability to demonstrate conceptual and technical skills to develop and execute plan involving data extraction from practice systems and databases. Letter grading.

414A-414B. Clinical Practicum: Adult/Gerontology Acute Care Oncology Nurse Practitioners. (8–9) Clinic practicum, 16 hours (course 414A) and 22 hours (course 414B). Enforced requisite: course 416C. Course 414A is enforced requisite to 414B. Assessment and therapeutic interventions for selected health problems in acute adult/gerontology populations. Preparation in variety of clinical settings to implement evidence-based practice guidelines and to critically analyze and adapt healthcare interventions based on individualized assessments of individual/family needs. Focus on context of community, cultural awareness, and practice in interdisciplinary teams. Students complete minimum of 160 direct clinical hours. Letter grading.

414C-414D. Clinical Practicum: Adult/Gerontology Acute Care Oncology Nurse Practitioners Practicum III, IV. (6 each) Clinic practicum, 16 hours. Enforced requisite: course 416C. Course 414C is enforced requisite to 414D. Assessment and therapeutic interventions for selected health problems in acute adult/gerontology populations. Developmental, health promotion, and maintenance needs of clients in relation to family, social, and cultural structures. Students complete minimum of 160 direct clinical hours. Letter grading.

414E. Adult/Gerontology Acute Care Nurse Practitioner Practicum I. (15 to 20) Clinic practicum, 15 to 20 hours. Enforced requisite: course 416D. Assessment and therapeutic interventions for selected health problems in acute adult/gerontology populations. Developmental, health promotion, and maintenance needs of clients in relation to family, social, and cultural structures. Students complete minimum of 160 direct clinical hours. Letter grading.

415C. Information Technology for Nursing Practice. (2) Lecture, two hours. Requisite: doctoral standing. Prepares students to obtain knowledge and skills related to information technology and patient care technology. Prepares DNP graduates to apply new knowledge, manage individual and aggregate information, and assess efficacy of patient care technology appropriate to specialized area of practice. Allows students to use information technology/system resources to implement decision-making initiative, support practice administrative decision-making. Students gain ability to demonstrate conceptual and technical skills to develop and execute plan involving data extraction from practice systems and databases. Letter grading.

418A. Requisites: courses 219A, 219B. Synthesis, evaluation, and practical application of organizational theory, behavior, and research content presented in course 218A, including organizational structure, processes, and outcomes. Requisites: courses 219A, 219B. Experience in organizational settings for synthesizing and evaluating content from course 218B, including strategic planning and management, care delivery systems, resource management, decision making, management information systems, professional role management, and development of knowledge and skill in compliance with accreditation and national standards. Requisites: courses 218B, 418B. Experience in organizational setting for synthesizing and evaluating content from course 218B, including stress management, organizational communication, governance, development and change, diverse relationships within organization, risk management, liability, and ethics of administration decision making.

418D. Nursing Administration Residency. (12) Clinic practicum, 33 hours; clinical conference, one hour. Requisites: courses 218C, 418C. Experience in organization setting as students assume leadership role in planning, managing, and evaluating administrative projects. Synthesis of content from course 218D, including assessing community healthcare needs, marketing, media, and political action and healthcare policy. Letter grading.


437B. Acute Care Pediatric Nurse Practitioner Clinical Practicum II. (6) Clinic practicum, 26 hours. Requisites: courses 237A, 237B, 437A, 441. Corequisite: course 237B. Offers clinical opportunity to apply advanced knowledge of pathophysiology, pharmacology, current research, and diagnostic skills in caring for infants, children, and adolescents with complex acute, critical or chronic health conditions. Emphasis on integration of acute care pediatric nurse practitioner role in implementation of comprehensive management plan for children with complex acute, critical or chronic health conditions under supervision of faculty and preceptors. Letter grading.
responsibility for planning, managing, and evaluating care in clinical settings. Emphasis on diagnostic reasoning, integration of research, and critical thinking skills in the identification and management of acute and chronic health problems of adults. Theory content emphasizes assessment, goal setting, treatment planning, and evaluation of nursing care of older adults and their families. Conceptualization and planning of care for older adults are utilized in clinical settings.

463. Nursing Care of Geriatric Patients and Families. (3) Lecture, two hours; clinical, one hour. Requisites: courses 252A, 252B, 465A. Addresses prevention and health promotion for chronic health problems of older adults. Theory content emphasizes assessment, goal setting, treatment planning, and evaluation of nursing care of older adults and their families. Emphasis is placed on the importance of critical thinking and decision-making in care of older adults.


467. Clinical Internship: Integration. (12) Clinical, 36 hours. Requisites: courses 258, 461, 462, 463, 464, 465A, 465B, 465C, 465D. Supervised practicum experience within clinical setting as part of interdisciplinary health care team, with focus on application of theory in clinical setting and interpretation of assessment and diagnostic data for purpose of planning, implementing, and evaluating course of care for patients, both as individuals and cohorts. Students design and complete quality improvement project that contributes to unit’s goals and objectives. Students implement advanced-level assessment, health history, and diagnostic reasoning with emphasis on social, cultural, and developmental influences. Basic assessment, health history, and diagnostic reasoning with emphasis on social, cultural, and developmental influences. Basic assessment, health history, and diagnostic reasoning with emphasis on social, cultural, and developmental influences. Basic assessment, health history, and diagnostic reasoning with emphasis on social, cultural, and developmental influences. Basic assessment, health history, and diagnostic reasoning with emphasis on social, cultural, and developmental influences.
faculty mentor. Provides structured didactic content and application of student's DNP scholarly project. Letter grading.

470C. DNP Scholarly Project Course III: Project Implementation. (8) Lecture, two hours; clinical, six hours. Requisite: course 470B. Continued development of knowledge, skills, and abilities to implement chosen DNP scholarly project proposal. Students assume role of leadership in interprofessional collaboration, consultation, and partnership. Students receive direction from faculty committee chair and peer feedback as they become engaged in microsystem where they implement their DNP scholarly project. Provides structured didactic content and application of student's DNP scholarly project. Letter grading.

470D. DNP Scholarly Project Course IV: Project Evaluation. (8) Lecture, two hours; clinical, six hours. Requisite: course 470C. Students complete evidence-based DNP scholarly project. Students complete implementation phase, evaluate project, and write final DNP scholarly project manuscript. Students receive individual direction from faculty committee chair and peer feedback as final DNP scholarly project paper is written. Students are also mentored in making professional presentations and writing for publication. Letter grading.

495. Nursing Education Practicum. (2) Seminar, six hours. Supervised student teaching internship in preparation for academic roles. In-depth opportunity to gain skills in role of nurse educator within university setting, including application of instructional strategies and evaluation methods. S/U grading.

496A-496B-496C. Education Practicum in Nursing Practice I, II, III. (1–11–1) Activity, one hour; discussion, one hour. Corequisites for course 496A: courses 401, 402; course 496A is requisite to course 496B, which is requisite to course 496C. Focuses on development and implementation of patient education program. Prepares DNP students for teaching roles in variety of different health care settings. Emphasis on application of educational program structure, content, appropriate curriculum development, methods of teaching and evaluation that can be applied in variety of different settings in which DNP advanced practices nurses teach. In progress (courses 496A, 496B) and letter (496C) grading.

596. Directed Individual Study or Research. (2 to 12) Tutorial, to be arranged. Opportunity for individual graduate nursing students to pursue special studies or research interests. May be repeated for credit, but only 4 units may be applied toward graduate degree requirements. S/U grading.

597. Individual Study for Comprehensive Examination. (2 to 4) Tutorial, to be arranged. Opportunity for individual graduate nursing students to prepare for comprehensive examination. May be repeated once for credit, but only 4 units may be applied toward MSN degree requirements. S/U grading.

599. Research for and Preparation of PhD Dissertation. (2 to 12) Tutorial, to be arranged. Individualized faculty supervision of PhD dissertation research by student's chair. May be repeated for credit, but only 8 units may be applied toward PhD degree requirements. S/U grading.

Obstetrics and Gynecology

David Geffen School of Medicine

27-139 Center for Health Sciences
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Obstetrics and Gynecology
310-206-6575

Deborah Krakow, MD, Chair
Beth Y. Karlan, MD, Vice Chair, Women’s Health Research
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Jeaninne Rahimian, MD, Vice Chair, Clinical Affairs
Christine H. Holschneider, MD, Vice Chair, Olive View-UCLA
Sarah J. Kilpatrick, MD, PhD, Vice Chair, Cedars-Sinai
Erin N. Saleeby, MD, MPH, Vice Chair, Harbor-UCLA

Scope and Objectives

The medical student program in the Department of Obstetrics and Gynecology is designed to provide students with firm background in the essentials of women’s health. The educational objectives are set forth by the Association of Professors of Gynecology and Obstetrics (APGO). Through a combination of didactic instruction and supervised clinical experience, students acquire the relevant clinical skills of history taking and physical examination and learn reproductive physiology from infancy to the postmenopausal period; antepartum, intrapartum, and postpartum obstetric care; and recognition and management of various gynecologic disorders. Third-year students work in ambulatory clinics and on inpatient services during a six-week core clerkship. Greater depth of experience is provided by elective clerkships during the fourth year that emphasize subspecialties such as maternal/fetal medicine, reproductive endocrinology and infertility, gynecologic oncology, and reproductive health.

For more details on the Department of Obstetrics and Gynecology, see the department website.

Obstetrics and Gynecology

Lower-Division Courses

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

99. Student Research Program. (1 to 2) Tutorial (supervised research or other scholarly work), three hours per week per unit. Entry-level research for lower-division students under guidance of faculty mentor. Students must be in good academic standing and enrolled in minimum of 12 units (excluding this course). Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP grading.

Upper-Division Course

199. Directed Research in Obstetrics and Gynecology. (2 to 8) Tutorial, two hours. Limited to juniors/seniors. Supervised individual research or investigation under guidance of faculty mentor. Culminating paper required. May be repeated for credit. Individual contract required. P/NP or letter grading.

OPHTHALMOLOGY

David Geffen School of Medicine

2-142 Stein Eye Institute
Box 957000
Los Angeles, CA 90095-7000

Opthalmology
310-825-5053

Bartly M. Mardon, MD (Bradley R. Straatsma, MD, Endowed Professor of Ophthalmology), Chair
Anne L. Coleman, MD, PhD (Fran and Ray Stark Foundation Professor of Ophthalmology), Vice Chair
Anthony C. Arnold, MD, Vice Chair, Education
Alfredo A. Sadun, MD, PhD, Vice Chair, Doheny Eye Centers-UCLA

Scope and Objectives

Ophthalmology is the medical science that encompasses knowledge concerning the eyes and the visual system. Derived from many basic and clinical fields, this knowledge must be synthesized by the physician and applied to the prevention, diagnosis, medical management, and surgical therapy of ocular disease.

In response to the steadily increasing incidence and growing importance of ocular disorders, the Department of Ophthalmology as well as the Stein Eye Institute and Doheny Eye Institute are closely coordinated to form a comprehensive center for research in the sciences related to vision, for the care of patients with disease of the eyes and related structures, and for education in the broad field of ophthalmology, all with community outreach.

The Department of Ophthalmology provides instruction and electives to medical students during the first, second, third, and fourth years at the Stein Eye Institute and the Doheny Eye Centers UCLA. Through lectures, demonstrations, discussions, and the opportunity to observe patients and review data on cases with a variety of ocular conditions, students gain knowledge and experience in ophthalmology.

For more details on the Department of Ophthalmology and courses offered, see the department website.

Opthalmology

Lower-Division Courses

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

99. Student Research Program. (1 to 2) Tutorial (supervised research or other scholarly work), three hours per week per unit. Entry-level research for lower-division students under guidance of faculty mentor. Students must be in good academic standing and enrolled in minimum of 12 units (excluding this course). Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP grading.

Upper-Division Course

199. Directed Research in Obstetrics and Gynecology. (2 to 8) Tutorial, two hours. Limited to juniors/seniors. Supervised individual research or investigation under guidance of faculty mentor. Culminating paper required. May be repeated for credit. Individual contract required. P/NP or letter grading.
Upper-Division Course

199. Directed Research in Ophthalmology. (2 to 8) Tutorial, two hours. Limited to juniors/seniors. Supervised individual research or investigation under guidance of faculty mentor. Culminating paper required. May be repeated for credit. Individual contract required. P/NP or letter grading.

ORAL BIOLOGY
School of Dentistry
13-089 School of Dentistry
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Los Angeles, CA 90095-1668

Oral Biology

E-mail contact
Cun-Yu Wang, DDS, PhD, Chair
Fariba S. Younai, DDS, Vice Chair

Professors
Shen Hu, PhD, MBA
Anahid Jwett, MPH, PhD
Mo K. Kang, DDS, MS, PhD (Jack A. Weichman Professor of Endodontics)
Renate Lux, PhD
Diana V. Messadi, DDS, MMSc, DMSc
Ichiro Nishimura, DDS, DMD
Igor Spigelman, PhD
Sotiriou Tetrads, DDS, PhD

Associate Professors
Reuben Kim, DDS, PhD
Yong Kim, PhD, in Residence

Assistant Professors
Jimmy K. Hu, PhD
Alleza Mohsahereinia, DDS, MS, PhD, FACP

Adjunct Professors
Carl A. Maida, MA, PhD
Ki-Hyuk Shin, MS, PhD

Adjunct Assistant Professor
Fang Wei, PhD

Professor of Clinical Dentistry
Fariba S. Younai, DDS

Scope and Objectives

Oral biology is the area of knowledge that deals with the development, structure, and function of the oral tissues and their interrelationships with other organ systems in normal and disease states. It is a multidisciplinary field that includes cell biology, bone biology, molecular biology, biochemistry, neuroscience, immunology, microbiology, and virology. The objective of the graduate program is to provide students with a sound foundation in these areas in order to pursue an academic or research career.

Graduate Study

Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Division website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Graduate Degrees

The Section of Oral Biology in the School of Dentistry offers Master of Science (MS) and Doctor of Philosophy (PhD) degrees in Oral Biology. A combined DDS/Oral Biology MS or PhD or advanced certificate training/Oral Biology MS or PhD is also offered.

Oral Biology

Lower-Division Courses

19. Fiat Lux Freshman Seminars, (1 Seminar) one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

98. Student Research Program. (1 to 2) Tutorial (supervised research or other scholarly work), three hours per week per unit. Entry-level research for lower-division students under guidance of faculty mentor. Students must be in good academic standing and enrolled in minimum of 12 units (excluding this course). Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP grading.

Graduate Courses


201A. Ontogeny. (3) Lecture, three hours. Evolutionary perspective of cellular development from simple molecules that were formed during first billion years of Earth to development of cells, tissues, and organs of invertebrates and vertebrates. Development of vertebrate feeding apparatus from comparative anatomical and physiological point of view, followed by embryogenesis of orofacial and dental structures of humans. S/U or letter grading.

201C. Pathobiology. (3) Lecture, three hours. Molecular basis for pathogenic processes in tissues of oral cavity. Topics include microbially mediated demineralization of hard tissues, soft tissue infections, cancer, genetics, colonization of mucosal substrates by opportunistic, etc. S/U or letter grading.


205A. Methodology in Research Design and Data Analysis. (2) Lecture, two hours. Designed for graduate oral biology students. Integration of didactic lectures in descriptive and inferential statistics and in research design (emphasis on experimental design), presentations of statistical software, and open discussions of specific needs of oral biology students when they design their research. Letter grading.


205C. Advanced Seminar: Comparative Effectiveness and Evidence-Based Research. (2) Seminar, one hour; discussion, one hour. Requisites: courses 205A, 205B (may be taken concurrently). Hands-on experience in process of systematic review, as shared mechanism in comparative effectiveness and evidence-based research. Specialized topics include level and quality of evidence assessments, acceptable sampling analysis, meta-analysis and meta-regression, and Bayesian-derived decision making following utility versus logic model. Students work on examples of their choice and interest in oral biology, medicine, and orthodontics. Letter grading.

206. Current Topics in Oral Immunology. (2) Lecture, two hours. Preparation: basic immunology. Discussion and analysis of current research dealing with immunological issues related to oral health, including HIV, opportunistic oral infections, periodontal pathology, oral immunopathology, caries immunology, endodontic immunology, etc. Letter grading.

208. Genomics and Proteomics in Oral Biology Research. (2) Lecture, one hour; discussion, one hour. Introduction to fundamentals and technical aspects of genomics and proteomics and analysis of data derived therefrom. Discussion of implications and applications of genomics and proteomics in diagnostic protocols such as salivary diagnostics. Letter grading.

209. Scientific Ethics. (2) Seminar, two hours. Required course in scientific ethics for graduate students in Oral Biology MS and PhD programs and for NRSA trainees in School of Dentistry. Letter grading.

211. Biology of Temporomandibular Joint. (2) Lecture, two hours. Anatomy, histology, physiology, and biomechanics of temporomandibular joint (TMJ) and related musculature. Pain mechanisms, sensorimotor integration, and motor mechanisms in TMJ function, and current methods of TMJ imaging. S/U or letter grading.

212. Proseminar: Oral Biology Research Seminar. (2) Seminar, one hour; discussion, one hour. Introductory course for graduate MS students. Guest seminars on topics of research in oral biology (pain pathways, immunology, bone biology, microbiology, cancer, and salivary genomics), followed by discussions led by course chair. Letter grading.

214. Current Research in Osteoimmunology. (2) Seminar, one hour; discussion, one hour. Exploration of oral bone biology and immunology and how both systems talk to each other. Topics include immune modulation of bone metabolism, osteoblastic niche for hematopoietic progenitors, adult bone marrow cell changes, and osteoimmunology in at-risk populations. Letter grading.

215A. Fundamentals of Immunology. (2) Lecture, two hours. Basic cellular and molecular mechanisms involved in responses mediated by immune effectors, with emphasis on immunopathology involved in autoimmunity, cancer, and immunodeficiency syndromes. Letter grading.

215B. Current Advanced Research Topics in Immunology. (2) Seminar, one hour; discussion, one hour. Overview of rapidly changing discoveries in very important field of immunology. Directed and student-led discussions of current cutting-edge research developments in immunology. Letter grading.

220. Integrative Biology and Biomaterials Science in Relation to Dentistry. (2) Lecture, one hour; laboratory, 90 minutes. Introduction to integrative biology and biomaterials science in relation to dentistry. Integration of bioengineering, materials sciences, cell biology, and dentistry. Fundamentals of materials science in relation to dentistry, stem cell biology, and knowledge necessary to participate in dental and biomedical research, innovation, and product development. Letter grading.

221. Advanced Dental Materials. (2) Lecture, one hour; laboratory, 90 minutes. Preparation of individuals for academic and research careers in dental ma-
tials science or broader area of biomaterials relevant to clinical dental practice. Fundamentals of dental materials and knowledge necessary to participate in research and product development. Introduction to materials science, with focus on major classes of materials used in dentistry, including polymers, metals, and ceramics, and providing up-to-date information on dental materials currently used in clinical dentistry. Letter grading.

226. Craniofacial Growth and Development. (2) Lecture, two hours. Preparation: strong background in histology and embryology. Students acquire, from scientific literature discussed in lecture/semiaformat, advanced knowledge of relevant aspects of human biology as they apply to classic and current concepts of principles governing growth and development of craniofacial region. Students required to present seminars on assigned topics that aid their understanding and analysis of course content that has application to their specific and professional fields. Letter grading.

227. Dental Embryology and Histology. (2) Lecture, two hours. Description and interpretation of important stages in development of orofacial apparatus and histological features of its component tissues. Critique of scientific literature relevant to course content and analysis of current state of knowledge about selected features of orofacial apparatus that are of significance to clinical dental specialists. S/U or letter grading.

228. Dental Pharmacology and Therapeutics. (2) Lecture, three hours. Survey of pharmacology, with particular emphasis on how drugs interact with dentistry. General principles of drug action and drug effects on autonomic and central nervous systems. S/U or letter grading.

229A. Culture, Ethnicity, and Health: Implications for Oral Biology and Medicine. (2) Seminar, one hour; discussion, one hour. Examination of sociocultural, biological, and linguistic anthropology to understand factors that influence health and well-being, experience and distribution of illness, prevention and treatment of sickness, and social relations of therapy management, and cultural importance and utilization of pluralistic medical systems. Theory, perspectives, and methods from clinical medicine, public health, epidemiology, demography, and social sciences. Letter grading.

229B. Anthropological Perspectives on Global Health: Implications for Oral Biology and Medicine. (2) Seminar, one hour; discussion, one hour. What factors determine health, illness, and disease in global context, including political ecology of infectious diseases, child health issues, women's health and reproductive health, global trade in legal and illegal drugs, demography and health transition, structural adjustments, problems associated with globalization of pharmaceutical industry; antibiotic resistance, and globalization of health. Letter grading.

234. Seminar: Developmental Neuroendocrinology. (2) Seminar, two hours. Designed for graduate and medical students. Psychological and physiological processes intertwine, and one important aspect of psychoneuroimmunological research is characterization of mechanisms that underlie these interactions. Examination of current literature on neuroimmune interaction from developmental perspective. S/U or letter grading.

2345. Interdisciplinary Response to Infectious Disease Emergencies: Dentistry Perspective. (4) (Same as Community Health Sciences M256, Medicine M256, and Nursing M298). Lecture, three hours; discussion, one hour. Designed to instill in professional students ideas of common emergency health problems and coordinated response, with specific attention to bioterrorism. Examination of tools to help students prevent, detect, and intervene in infectious disease emergencies. Interdisciplinary sessions also attended by students in Schools of Medicine, Nursing, and Public Health during weeks two through five. Letter grading.

222. Hematopoiesis: Basic Biology and Clinical Implications. (4) Lecture, three hours; discussion, one hour. Required understanding of case basis. In-depth study of concepts and paradigms in hematopoietic development. Mammalian hematopoiesis and normal development, with focus on molecular regulation of cellular development and equal emphasis on experimental and theoretical aspects of knowledge in field. Discussion of important pathological states within hematopoietic system, as well as established and novel avenues for therapy. Topics include hematopoietic stem cells and niche, transcriptional and epigenetic regulation of hematopoiesis, B- and T-lymphocyte development, myeloid, erythroid, and platelet differentiation, innate immune responses, myeloid and lymphoid neoplasia, and bone marrow transplantation/gene therapy. S/U or letter grading.

M229. Molecular Mechanisms of Host/Pathogen Interaction. (4) (Same as Microbiology M229) Lecture, two hours; discussion, two hours. Required requisites: Molecular Biology 254A through 254D. Molecular mechanisms of microbial interactions with eukaryotic host cells that affect host survival. Topics include pathogenesis of common viruses, bacteria, fungi, and parasites, basis of toxemia-mediated cellular damage, and immune suppression of microbial tissue damage. Letter grading.

M237. Cellular and Molecular Basis of Disease. (4) (Same as Biological Chemistry M237) Lecture, two hours; laboratory, two hours. Preparation: one course each in molecular biology, cell biology, and biological chemistry. Discussion of key issues in disease mechanisms, with emphasis on experiments leading to understanding of these mechanisms. Identification of important questions still remaining unanswered. Letter grading.

238. Histology and Pathology for Graduate Students. (2) Laboratory, two hours. Designed for UCLA ACCESS or Cellular and Molecular Pathology PhD students. Basic histological knowledge normal tissue, pathologic processes, and animal models as observed by light microscopy. Letter grading.

240. Transplantation Immunology from Benchside to Bedside. (4) Lecture, three hours; laboratory, one hour. Preparation: Basic Immunology. Limited to graduate students. New developments in organ transplantation, updates on basic science of immune mechanisms, integration of basic science principles with clinical practice. Letter grading.

M255. Mapping and Mining Human Genome. (3) (Same as Human Genetics M255) Lecture, three hours. Basic molecular genetic and cytogenetic techniques of gene mapping. Selected regions of human genome, including, particularly gene families and clusters of genes that have remained linked from mouse to human. Discussion of localization of diseases genes, S/U or letter grading.

256. Seminar: Viral Oncology. (2) Seminar, two hours. Advanced research seminar designed to consider current developments in field. Selection of current subjects and publications dealing with tumor viruses, oncogene activation, and cellular regulation. S/U or letter grading.

M257. Introduction to Toxicology. (4) (Same as Pharmacology M257) Requisite: Pharmacology M241. Biochemical and systemic toxicology, basic mechanisms of adverse interaction of toxic agents with specific organ systems.

M258. Pathological Changes in Toxicology. (4) (Same as Pharmacology M258) Designed to give students experience in learning normal histology of tissues which are major targets of toxin and the range of physiologic changes that occur in these tissues (liver, bladder, lung, kidney, nervous system, and vascular system).

260. Immunopathology. (4) Lecture, two hours; discussion, one hour; laboratory, one hour. Requisite: Microbiology 261. Advanced information for graduate advanced undergraduate students regarding immune system anatomy, lymphocytic development, acute and chronic inflammation, hypersensitivity, and autoimmunity. Letter grading.

274. Cytogenetics and Genomics. (3) Lecture, three hours. Comprehensive guide so students gain sufficient knowledge in conventional and state-of-art cytogenetic and genomic principles and techniques and their applications in clinical and research settings. Focus on relationship between various chromosomal and genomic abnormalities in humans as identified by basic and advanced technologies such as fluorescence in situ hybridization (FISH), chromosomal microarray analysis (CMA), and next-generation sequencing (NGS). All aspects of molecular cytogenetics and cytogenomics through didactic teaching sessions, journal clubs, and interactive discussions. S/U or letter grading.

270. Basic and Clinical Aspects of Developmental Hematology. (4) Lecture, two hours. Graduate- and postgraduate-level course that covers broad range of topics in both basic and clinical aspects of developmental hematology. Pediatric hematologic disorders provide important paradigm to study other developmental systems. Subjects include hematopoiesis, bone marrow cell biology, and alternative models to study developmental hematology (zebrafish and Drosophila), basic physiology of normal and abnormal red cells, platelets, and white cells, leukemogenesis and novel therapeutics to treat leukemia, basic and clinical stem cell transplantation, state-of-the-art methods in developmental hematology (genomics, proteomics, and gene therapy, design of clinical trials and biomarkers, and predictive statistics in developmental hematology. Letter grading.

M272. Stem Cell Biology and Regenerative Medicine. (4) (Same as Molecular, Cell, and Developmental Biology M272) Lecture, two hours; discussion, two hours. Designed for graduate students. Presentation of current knowledge of embryonic and adult stem cells and factors that regulate their growth and differentiation. Major emphasis on how advances in cell and molecular biology and tissue engineering can be applied to use of stem cells in regenerative medicine. Bioethical and legal issues related to stem cell research. S/U or letter grading.

280. Clinical Aspects and Molecular Biology of Bone Marrow Failure Syndromes. (4) Lecture, two hours. Limited to graduate students. Coverage of broad range of topics on both clinical aspects and molecular pathogenesis of bone marrow failure syndromes. Studies provide important paradigms to understand fundamental mechanisms of human disease in addition to normal and abnormal blood cell development. Topics include basic biology and clinical features of aplastic anemia, myelodysplastic syndromes, Diamond Blackfan Anemia, Schwachman Diamond Syndrome, Fanconi Anemia, Dyskeratosis Congenita, Paroxysmal Nocturnal Hemoglobinuria, flow cytometry, and research approaches to study bone marrow failure syndromes. Journal club sessions include discussion of two journal articles per meeting—clinical and one basic/translational. Students present at least one journal article and lead group discussion, S/ U or letter grading.


296. Research Topics in Pathology. (1 to 2) Requisite: Group meeting, one to two hours. Limited to departmental graduate students. Advanced study and analysis of current topics in pathology. Discussion of current research and literature in research specialty of faculty member teaching course. May be repeated for credit. Letter grading.

375. Teaching Apprentice Practicum. (1 to 4) Seminar, to be arranged. Preparation: apprentice personnel employment as teaching assistant, associate, or fellow. Teaching apprenticeship under active guidance and supervision of regular faculty member responsible for curriculum and instruction at UCLA. May be repeated for credit. S/U grading.


**Pediatrics**

David Geffen School of Medicine
22-412A Marion Davies Children’s Center
Box 951752
Los Angeles, CA 90095-1752

Pediatrics
310-825-5095

Sherin U. Devaskar, MD, (Mattel Executive Endowed Professor of Pediatrics), Executive Chair
Peter G. Szilagyi, MD, MPH, Executive Vice Chair and Vice Chair, Research
Paul A. Krogtad, MD, PhD, Executive Vice Chair, Academic Affairs
Carlos F. Lerner, MD, Vice Chair, Clinical Affairs and Advocacy
Kathy L. Perkins, MD, Vice Chair, Education
Richard Findlay, MD, Vice Chair, Drew University
Adam J. Jonas, MD, Vice Chair, Harbor-UCLA Charles F. Simmons, Jr., MD, Vice Chair, Cedars-Sinai
Shannon Thyne, MD, Vice Chair, Olive View-UCLA
Christopher T. Denny, MD, Associate Vice Chair, Academic Affairs
Deborah Lehman, MD, Associate Vice Chair, Education
Andranik Madikians, MD, Associate Vice Chair, Clinical Affairs
Martin G. Martin, MD, MPP, Associate Vice Chair, Translational Research
Theodore B. Moore, MD, Associate Vice Chair, Subspecialties
Anna-Barbara Moscicki, MD, Associate Vice Chair, Translational Research

Peter G. Szilagyi, MD, MPH, 310-825-5095

The Department of Pediatrics has faculty members at seven teaching hospitals: Cedars-Sinai, Harbor-UCLA, Kaiser Permanente Los Angeles, and Olive View-UCLA medical centers; UCLA Mattel Children’s Hospital; UCLA Medical Center, Santa Monica; and Venice Family Clinic. For second-year medical students, the fundamentals of pediatric history and physical examination are taught at all sites as part of the pediatric clinical skills course.

For third-year medical students, the required six-week clinical clerkship in pediatrics is offered at the following five sites: Cedars-Sinai, Harbor-UCLA, and Kaiser Permanente Los Angeles medical centers; UCLA Mattel Children’s Hospital/Olive View-UCLA Medical Center; and UCLA Medical Center, Santa Monica. For fourth-year medical students, in-depth subspecialty electives offered by the Department of Pediatrics are listed in the School of Medicine Handbook of Clinical Courses, as are advanced clinical clerkships.

For more details on the Department of Pediatrics and courses offered, see the department website.

**Scope and Objectives**

The Department of Pediatrics has faculty members at seven teaching hospitals: Cedars-Sinai, Harbor-UCLA, Kaiser Permanente Los Angeles, and Olive View-UCLA medical centers; UCLA Mattel Children’s Hospital; UCLA Medical Center, Santa Monica; and Venice Family Clinic. For second-year medical students, the fundamentals of pediatric history and physical examination are taught at all sites as part of the pediatric clinical skills course.

For third-year medical students, the required six-week clinical clerkship in pediatrics is offered at the following five sites: Cedars-Sinai, Harbor-UCLA, and Kaiser Permanente Los Angeles medical centers; UCLA Mattel Children’s Hospital/Olive View-UCLA Medical Center; and UCLA Medical Center, Santa Monica. For fourth-year medical students, in-depth subspecialty electives offered by the Department of Pediatrics are listed in the School of Medicine Handbook of Clinical Courses, as are advanced clinical clerkships.

For more details on the Department of Pediatrics and courses offered, see the department website.

**PHARMACOLOGY**

See Molecular and Medical Pharmacology

**PHILosophy**

College of Letters and Science
321 Dodd Hall
Box 951451
Los Angeles, CA 90095-1451

Philosophy
310-825-4641

Department e-mail

Gavin Lawrence, DPhil, Chair

Professors

David L. Blank, PhD
Tyler Burge, PhD (Mr. and Mrs. C. N. Flint Professor of Philosophy)
John P. Carriero, PhD
Mark D. Greenberg, JD, DPhil
Barbara Herman, MA, PhD (Gloria and Paul Griffin Professor of Philosophy)

Pamela Hieronymy, PhD
David B. Kaplan, PhD (Hans Reichenbach Professor of Scientific Philosophy)

Gavin Lawrence, DPhil
Calvin G. Normore, PhD (Brian P. Copenhaver Professor)
Michael A. Rescorla, PhD
Sherrilyn Rouss, PhD
Seana Shiffrin, JD, DPhil, (Pete Kameron Professor of Law and Social Justice)

Sheldon R. Smith, PhD

Professors Emeriti

Robert Merrihew Adams, PhD
Joseph Almog, DPhil

Brian P. Copenhaver, PhD (Steven F. and Christine L. Udder-Hasy Professor Emeritus)

Donald A. Martin, BS
Herbert Morris, LLB, DPhil
Terence D. Parsons, PhD

Associate Professors

Samuel J. Cummings, PhD

Alexander J. Julius, PhD
Sean Walsh, PhD

Assistant Professors

Joshua D. Armstrong, PhD
Adam D. Crager, PhD
Daniela J. Dover, PhD
Katrina J. Elliot, PhD
Gabriel J. Greenberg, PhD

Lecturers

Andrew Hsu, PhD
Steven R. Levy, PhD

Scope and Objectives

Philosophy is concerned with the big questions that face us all as conscious, reflective beings. Questions such as how should we live our lives, and what is the nature of the world we live in? It overlaps with other fields—the sciences, as well as law, politics, and the arts—but is versatile enough to question the foundations of those fields, and indeed the methodol-
ology of philosophy itself is a species of philosophical inquiry.

The benefits of an undergraduate education in philosophy are those Francis Bacon attributed to reading, conversation, and writing: reading gives us material for our own thought; conversation, facility at sharing and debating ideas; and writing, the ability to fix ideas with precision. A typical philosophy course involves reading: from the center and margins of the major world traditions, to modern thinkers framing today’s urgent issues. It also involves conversation, as philosophers like to test ideas out in company and learn from those who see things differently to them. The final test of a philosophical theory or argument is to submit it to the rigor of writing. Philosophical writing, in the ideal, is clear, exact, and free of the rhetoric that may be able to temporarily sway an opponent in the heat of conversation.

The aim of the graduate program is to produce philosophers of high quality. A graduate degree in philosophy is the usual path to becoming a professional academic philosopher, but the skills attained in the study and practice of philosophy are highly transferable and sought after by enlightened employers across the globe. The focus of the department’s graduate training is original philosophical research, and the PhD program culminates in the production of a long written document (the dissertation). Students in the graduate program also receive training and practice in teaching philosophy at various levels, and to audiences from diverse backgrounds.

The department offers programs leading to the BA and PhD degrees.

**Undergraduate Study**

**Philosophy BA**

**Learning Outcomes**

The Philosophy major has the following learning outcomes:

- Demonstrated solid foundation in logic, the history of philosophy (ancient, medieval, and modern), ethics and value theory, and metaphysics and epistemology
- Critical analysis and evaluation of arguments in historical texts and the contemporary philosophical literature
- Demonstrated ability to formulate and clearly present valid and sound arguments
- Development of oral and written skills that display skill at argument and the ability to engage honestly with difficult and controversial topics

**Preparation for the Major**

**Required:** Four lower-division courses, including Philosophy 7 or 21, 22, 31, and one other lower-division philosophy course.

**Transfer Students**

Transfer applicants to the Philosophy major with 90 or more units must complete as many of the following introductory courses as possible prior to admission to UCLA: one philosophy of mind or skepticism and rationality course, one ethical theory course, one symbolic logic course, and one additional philosophy course.

Refer to the [UCLA transfer admission guide](http://example.com) for up-to-date information regarding transfer selection for admission.

**The Major**

Required: Thirteen upper-division (100 series) or graduate (200 series) philosophy courses (52 units), including Philosophy 100A, 100B, 100C. Seven of the 13 courses must be distributed among the groups into which the undergraduate and graduate courses are divided—history of philosophy; logic, semantics and philosophy of science; ethics and value theory; and metaphysics and epistemology. Students must take two courses in each of three of the groups and one course in the remaining group.

Contract courses (199) may be applied toward the major but not toward a group requirement. A maximum of 8 units of course 199 may be applied toward the major but not toward a group requirement. Courses 100A, 100B, 100C may not be applied toward any group requirement. No course used to satisfy the major or preparation requirements may be taken on a P/NP basis.

Students intending to do graduate work in philosophy should consult with both the graduate and undergraduate advisers.

**Honors Program**

**Admission**

To be admitted to the honors program, students must have taken at least three upper-division philosophy lecture or seminar courses at UCLA with an overall grade-point average of 3.7.

**Requirements**

To be awarded honors in philosophy at graduation, Philosophy majors must (1) have a 3.7 grade-point average in UCLA philosophy courses and a 3.7 GPA in upper-division UCLA philosophy courses; (2) satisfy the honors directed study requirement by taking Philosophy 198A and 198B in conjunction (usually, but not necessarily concurrently) with two different regular upper-division philosophy courses supervised by the instructors of those courses; and (3) receive a grade of A– or better in each course applied toward satisfaction of the honors requirement.

Students may substitute Philosophy 191 for either course 198A or 198B or, alternatively, may complete up to two philosophy graduate seminars in lieu of courses 198A and/or 198B. For an undergraduate or graduate seminar to be applied toward the honors directed study requirement, the consent of both the seminar instructor and the faculty honors adviser is required in advance. Students may also substitute up to one 4-unit Philosophy 199 course in which they produce a substantial paper that represents an original piece of research or its equivalent.

Exceptional work done to satisfy the honors requirement may be submitted to the department chair for consideration for highest honors.

**Philosophy Minor**

To enter the Philosophy minor, students must have an overall grade-point average of 2.0 or better.

**Required Lower-Division Courses (8 units):** Philosophy 7 or 21, and 22 or 31.

**Required Upper-Division Courses (24 units):** Five courses, including at least one from each of the four groups into which the undergraduate and graduate courses are divided (Philosophy 100A, 100B, 100C apply toward Group 1); one additional upper- or lower-division philosophy course.

A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor.

Each minor course must be taken for a letter grade, and students must have an overall grade-point average of 2.0 or better in the minor. Successful completion of the minor is indicated on the transcript and diploma.

**Graduate Study**

Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Division website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

**Graduate Degrees**

The Department of Philosophy offers Master of Arts (MA), Candidate in Philosophy (CPhil), and Doctor of Philosophy (PhD) degrees in Philosophy. A concurrent degree program (Philosophy PhD/Law JD) is also offered.

**Philosophy**

**Lower-Division Courses**

1. **Beginnings of Western Philosophy.** (5) Lecture, three hours; discussion, one hour. Origins of Greek cosmology and philosophy, beginnings of systematic thought and scientific investigation concerning such questions as origin and nature of the material world, concept of laws of nature, possibility and extent of knowledge. Concentration on pre-Socratic philosophers, particularly Anaximander, Heraclitus, the Pythagoreans, Parmenides, Empedocles, and Greek atomists, during first two thirds of course and on Sophocles and some earlier works of Plato in last few weeks. P/NP or letter grading.

2. **Introduction to Philosophy of Religion.** (5) Lecture, four hours; discussion, one hour. Introductory study of such topics as nature and grounds of religious belief, relation between religion and ethics, nature and existence of God, problem of evil, and what can be learned from religious experience. P/NP or letter grading.

3. **Historical Introduction to Philosophy.** (5) Lecture, three hours; discussion, two hours. Historical introduction to Western philosophy based on classical texts dealing with major problems, related thematically and studied in chronological order: properties of rational argument, evidence of God, problem of knowledge, nature of causality, relation between mind and body, possibility of justice, and others. P/NP or letter grading.

5. Philosophy in Literature. (5) Lecture, three hours; discussion, one hour. Philosophical inquiry into such themes as freedom, responsibility, guilt, love, self-knowledge, and death, and meaning of life through examinations of great literary works in Western tradition. P/NP or letter grading.

6. Introduction to Political Philosophy. (5) Lecture, three hours; discussion, one hour. Study of some classical or contemporary works in political philosophy. Questions that may be discussed include the nature of justice? Why obey the law? Which form of government is best? How much personal freedom should be allowed in society? P/NP or letter grading.

7. Introduction to Philosophy of Mind. (5) Lecture, three hours; discussion, one hour. Introductory study of philosophical issues about nature of the mind and its relation to the body, including materialism, functionalism, behaviorism, determinism and free will, nature of psychological knowledge. P/NP or letter grading.

8. Introduction to Philosophy of Science. (5) Lecture, three hours; discussion, one hour. Study of selected problems concerning the character and reliability of scientific understanding, such as nature of scientific theory and explanation, reality of theoretical entities, inductive confirmation of hypotheses, and occurrence of scientific revolutions. Discussion at non-technical level of episodes from history of science. P/NP or letter grading.

9. Principles of Critical Reasoning. (5) Lecture, four hours; discussion, one hour. Nature of arguments: how to detect and assess soundness of arguments when they are stated. Common fallacies that often occur in arguments discussed in light of what counts as good deductive or inductive inference. Other topics include use of language in argumentation to arouse emotions as contrasted with conveying thoughts, logic of scientific experiments and hypothesis-testing in general, and some general ideas about probability and its role in scientific explanation. Entry-level research for lower-division students under guidance of faculty mentor. Students must be in good academic standing and enrolled in an introductory course. Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP grading.

10. Upper-Division Courses

100A. History of Greek Philosophy. (4) Lecture, three hours; discussion, one hour. Preparation: one philosophy course. Survey of origins of Greek metaphysics from pre-Socratics through Plato and Aristotle. P/NP or letter grading.

100B. Medieval and Early Modern Philosophy. (4) Lecture, three hours; discussion, one hour. Preparation: one philosophy course. Strongly recommended requisite: course 100A. Survey of development and transformation of Greek metaphysics and epistemology within medieval and early modern periods. Special emphasis on Augustine, Anselm, Aquinas, and Descartes. P/NP or letter grading.

100C. History of Modern Philosophy, 1650 to 1800. (4) Lecture, three hours; discussion, one hour. Preparation: one philosophy course. Strongly recommended requisite: course 100B. Courses 100A, 100B, and 100C should be taken in immediately successive terms if enrollments permit. Preparation: one philosophy course. Survey of development of metaphysics and theory of knowledge from 1650 to 1800, including Locke and/or Berkeley, Malebranche and/or Leibniz, and culminating in Hume and Kant. Topics may include views of great philosophers of the period on mind and body, causality, existence of God, skepticism, empiricism, limits of human knowledge, and philosophical foundations of modern science. P/NP or letter grading.

Group I: History of Philosophy

M101A. Plato—Earlier Dialogues. (4) Same as Classics M146A.) Lecture, three hours; discussion, one hour. Preparation: one philosophy course. Preliminary study of selected topics in early and middle dialogues of Plato. P/NP or letter grading.

M101B. Plato—Later Dialogues. (4) Same as Classics M147.) Lecture, three hours; discussion, one hour. Preparation: one philosophy course. Study of selected topics in middle and later dialogues of Plato. P/NP or letter grading.

M102. Aristotle. (4) Same as Classics M147.) Lecture, three hours; discussion, one hour. Preparation: one philosophy course. Study of selected works of Aristotle. P/NP or letter grading.

M103A. Ancient Greek and Roman Philosophy. (4) Same as Classics M145A.) Lecture, three hours. Study of some major Greek and Roman philosophical texts, including those of pre-Socratics, Plato, Aristotle, and Hellenistic philosophers, with emphasis on historical and cultural setting of texts, their literary form, interrelations, and contribution to discussion of basic philosophical issues. P/NP or letter grading.

M103B. Later Ancient Greek Philosophy. (4) Same as Classics M145B.) Lecture, three hours. Preparation: one course from 1, 100, or 101. Study of some major texts in Greek philosophy of Hellenistic and Roman periods. Readings vary and include works by Stoics, skeptics, philosophers of science, Neoplatonists, etc. P/NP or letter grading.

104. Topics in Islamic and Arabic Philosophies. (4) Lecture, three to four hours; discussion, one hour (when scheduled). Preparation: one philosophy course. Development of philosophy within orbit of Islam from beginning of interaction of Islam with ancient philosophy to period of hegemony of Ottoman Empire. Figures examined may vary but usually include many of al-Kindi, Ibn Sina (Avicenna), al-Ghazali, ben Maimon (Maimonides), Ibn Rushd (Averroes), and others. Topics include central issues in metaphysics and epistemology. May be repeated for credit with consent of instructor. P/NP or letter grading.

105. Later Medieval Philosophy. (4) Preparation: one philosophy course. Metaphysics, theory of knowledge, and theology of Aquinas, Duns Scotus, and Ockham, with less full discussion of other authors from the 13th through early 15th century. Selected texts read in English translation. P/NP or letter grading.

106. Topics in Medieval Philosophy. (4) Lecture, four hours; discussion, one hour. Preparation: one philosophy course. Recommended requisite: course 105 or 108. Advanced study of medieval philosophy with one medi eval philosopher such as Augustine, Anselm, Abelard, Aquinas, Scotus, or Ockham, or of single area such as logic or theory of knowledge in several medieval philosophers. Topic announced each term. May be repeated for credit with consent of instructor. P/NP or letter grading.

C108. Hobbes. (4) Lecture, three hours; discussion, one hour. Preparation: one philosophy course. Hobbes' political philosophy, social contract, Leviathan, with attention to its relevance to contemporary political philosophy. May be concurrently scheduled with course C208. P/NP or letter grading.

C109. Descartes. (4) Lecture, four hours; discussion, one hour. Preparation: one philosophy course. Study of works of Descartes, with discussion of issues such as problem of skepticism, foundations of knowledge, existence of God, relation between mind and body, and connection between science and metaphysics. May be concurrently scheduled with course C209. P/NP or letter grading.

C110. Spinoza. (4) Lecture, three hours; discussion, one hour. Preparation: one philosophy course. Study of philosophical ideas of Spinoza. May be concurrently scheduled with course C210, in which case there is weekly discussion meeting, plus fewer readings and shorter papers for upper-division students. Limited to students when concurrently scheduled. P/NP or letter grading.

C111. Leibniz. (4) Lecture, three hours; discussion, one hour. Preparation: course 21. Study of philosophy of Leibniz. May be concurrently scheduled with course C211, in which case there is weekly discussion
C127B. Philosophy of Language. (4) Lecture, four hours; discussion, one hour. Requisite: course 31. Course C127A is not requisite to C127B. Selected topics similar to those considered in course C127A but at more advanced and technical level. May be repeated for credit with consent of instructor. Concurrently scheduled with course C228B. P/NP or letter grading.

C127C. Philosophy of Language. (4) Lecture, four hours; discussion, one hour. Requisite: course 31. Recommended: course C127A or C127B. Selected topics similar to those considered in course C127B, but with focus on contemporary figures. May be repeated for credit with consent of instructor. Concurrently scheduled with course C228C. P/NP or letter grading.

C128. Topics in Philosophy of Mathematics. (4) Formerly numbered 128. Lecture, four hours. Requisites: courses 31, 132, and preferably one additional logic course. Introduction to philosophy of mathematics. Survey of philosophy of mathematics from Kant to Hilbert. Study of content and development of three main schools of logical, formalism, and intuitionism in their historical context. Study of original texts of philosophy such as Kant, Frege, and Russell, and how their philosophy interacted with contemporary developments in logic. May be repeated for credit with consent of instructor. May be concurrently scheduled with course C223. P/NP or letter grading.

C129. Philosophy of Psychology. (4) Lecture, four to five hours; discussion, one hour (when scheduled). Preparation: one 4-unit psychology course, one philosophy course. Selected philosophical issues arising from psychological theories. Nature of perception and issues about perception and development of important types of representation (e.g., of body, cause, agency) in early childhood. Relevance of computer simulation to accounts of thinking and meaning; relational and functional views of learning theory; psychological aspects of theory of syntax. May be repeated for credit with consent of instructor. P/NP or letter grading.

C130. Philosophy of Space and Time. (4) Lecture, three hours; discussion, one hour. Preparation: two philosophy courses or one philosophy course and one physics course. Selected philosophical problems concerning nature of space and time. Philosophical implications of space-time theories, such as those of Newton and Einstein. Topics may include nature of geometry, conventionalism, absolutist versus relationalist views of space and time, philosophical impact of relativity theory.

C131. Science and Metaphysics. (4) Lecture, three to four hours; discussion, one hour (when scheduled). Preparation: two philosophy courses. Recommended: some background in basic calculus and physics. Intensive study of one or two metaphysical topics on which results of modern science have been thought to bear. Topics may include nature of causation, reality and direction of time, time-travel, backwards causation, realism, determinism, absolute view of space, etc. May be repeated for credit with consent of instructor. P/NP or letter grading.


C133. Topics in Logic and Semantics. (4) Lecture, four hours; discussion, one hour. Enforced requisite: course 31. Possible topics include formal theories, definitions, alternative interpretations, many-valued logics, deviant logics. May be repeated for credit with consent of instructor. P/NP or letter grading.

C138. Probability and Inductive Logic. (4) Lecture, three hours; discussion, one hour (when scheduled). Requisite: course 31, or background in logic, computer science, statistics, or mathematics. Topics may include interpretations of probability, Bayesian and non-Bayesian confirmation theory, paradoxes of conditionality, coherence, and conditioning. May be concurrently scheduled with course C225. P/NP or letter grading.

M134. Introduction to Set Theory. (4) (Same as Mathematics M114S.) Lecture, three hours; discussion, one hour. Requisite: course 135 or Mathematics 110A or 131A. Axiomatization of the natural number system, formalization of the language, formal deductive systems, and models. Compactness and completeness theorems that concern complexity of notion of logical consequences. P/NP or letter grading.


M137. Philosophy of Biology. (4) Lecture, four hours. Preparation: one philosophy course. Intensive study of one or two current topics in philosophy of biology, which may include structure of evolutionary theory, fitness, taxonomy, reductionism, concept of biological species, and biological explanation. P/NP or letter grading.

M138. Philosophy of Visual Representation. (4) Lecture, four hours. Preparation: one philosophy course (in philosophy of mind or language recommended). In-depth investigation of philosophical issues in visual representation. Possible topics include visual perception, mental imagery, image versus language, semantics, pictorial representation, comics and film, diagrams, and data visualization. P/NP or letter grading.

Group II: Ethics and Value Theory

150. Society and Morals. (4) Lecture, three hours; discussion, one hour. Requisite: course 22. Critical study of principles and standards of behavior, in discussion of current moral and social issues. Topics similar to those in course 4, but familiarity with some basic philosophical concepts and methods presupposed. May be repeated for credit with consent of instructor.

151A-C151B-151C. History of Ethics. (4–4–4) Lecture, three hours; discussion, one hour. Preparation: two philosophy courses. Each course may be taken independently for credit. P/NP or letter grading. 151A. Selected Classics in Ancient Ethical Theories: Plato, Aristotle. C151B. Modern. Intensive study of Kant’s ethical theory. May be repeated for credit with consent of instructor. May be concurrently scheduled with course C245; 151C. Selected Classics of Medieval Ethics.

152A. Topics in Moral Philosophy. (4) Lecture, three to four hours; discussion, one hour (when scheduled). Study of selected topics in moral philosophy. Possible topics may include role of emotions in moral agency, reactive attitudes and other responses to moral and immoral action, moral motivation, moral relationships, moral character and identity, and moral change and moral transformation. P/NP or letter grading.

M152B. Topics in Moral Philosophy: Evil. (4) (Same as Study of Religion M179.) Lecture, three to four hours; discussion, one hour (when scheduled). Preparation: one philosophy course. Course 152A is not requisite to M152B. Exploration of philosophical issues raised by topic of evil actions and/or evil people. Topics may include personification, the concept of evil and theodicies, responsibility for evil and problem of free will, cause and motivations for evil action, and variant responses to evil such as forgiveness and punishment. P/NP or letter grading.
15A. Topics in Ethical Theory: Normative Ethics. (4) Lecture, three hours; discussion, one hour. Requi- site: course 22. Study of selected topics in normative ethical theory. Topics may include human rights, virtues and vices, principles of culpability and praiseworthy- ness. May be repeated for credit with consent of instructor. P/NP or letter grading.

C153B. Topics in Ethical Theory: Metaethics. (4) Lecture, three hours; discussion, one hour. Requisite: course 22. Study and analysis of basic concepts, selected problems, and contemporary issues in meta- ethics. Topics may include analysis of moral language, justification of moral realism, contractualism, free will, moral motivation, etc. May be repeated for credit with consent of instructor. May be concurrently scheduled with course C253B. P/NP or letter grading.

15U. Topics in Value Theory: Rationality and Action. (4) Lecture, three hours; discussion, one hour. Requi- site: course 6 or 7 or 22. Selected topics concerning normative issues in practical rationality or philosophy of action. Topics may include moral and practical di- lemmas, nature of reasons for action, rationality of morality and prudence, weakness of will, freedom of will, and decision theory. May be repeated for credit with consent of instructor. P/NP or letter grading.

C154B. Topics in Value Theory: Moral Responsibili- ty and Decision Theory. (4) Lecture, three hours; discussion, one hour. Preparation: one philosophy course. Examination of philosophical problems surrounding moral responsibility and free will, using contemporary or classical readings in at- tempt to better understand kind of freedom required for moral agents. May be repeated for credit. May be concurrently scheduled with course C244B. P/NP or letter grading.

155A. Medical Ethics. (4) Formerly numbered 155.) Lecture, three to four hours; discussion, one hour (when scheduled). Course 155A is not requisite to 155B. Examination of philosophical issues raised by problematic domains of medicine, such as abortion, euthanasia, and medical experimentation. May be repeated for credit with consent of instructor. P/NP or letter grading.

155B. Topics in Medical Ethics. (4) Lecture, three to four hours; discussion, one hour (when scheduled). Course 155A is not requisite to 155B. Intensive investiga- tion of one or two topics or philosophical issues in medical ethics, such as abortion, euthanasia, patient-doctor relationship, distributional justice, au- tonomy and medical decision making, and research ethics. Topics announced each term. May be repeated for credit with consent of instructor. P/NP or letter grading.

C156. Topics in Political Philosophy. (4) Lecture, three hours; discussion, one hour. Analysis of some basic concepts in political theory. May be repeated for credit with consent of instructor. May be concurrently scheduled with course C247. P/NP or letter grading.

157A-157B. History of Political Philosophy. (4-4) Lecture, three hours; discussion, one hour. Prepara- tion: two philosophy courses. May be repeated with consent of instructor. 157A. Reading and discussion of classic works in earlier political theory, especially those by Hobbes, Locke, Hume, and Rousseau. 157B. Reading and discussion of classic works in later politi- cal theory, especially those by Kant, Hegel, and Marx.

161. Aesthetics in Perspective. (4) Lecture, three hours; discussion, one hour. Preparation: one philo-sophy course. Philosophical theories about nature and importance of art and art criticism, aesthetic experi- ence, and aesthetic values. May be repeated for credit with consent of instructor.

166. Philosophy of Law. (4) Lecture, three hours; dis- cussion, one hour. Preparation: one philosophy course. Study of ethical dimensions of feminist theory. Issues discussed may include contested significance of gender; different models of gender identity and gender equality; gender discrimination, subordination, hierarchy, and resis- tance; gender equality in family and workplace; sexual harassment and violence; reproductive freedom; and lust and unwanted procreative arrangements as they af- fect gender. P/NP or letter grading.

168. Philosophy of Race. (4) Lecture, three hours; discussion, one hour (when scheduled). Preparation: one philosophy course. Examination of theories of race and racism and intersection of race with other so- cial structures. Topics may include metaphysics of race, social construction, racial identity, racial injus- tices, focusing on practical, moral, and social problems. May be repeated for credit with consent of instructor.

172. Philosophy of Language and Communication. (4) Lecture, three hours; discussion, one hour. Theo- ries of meaning and reference; how words relate to things; limits of meaningfulness; analysis of speech acts; relation of everyday language to scientific discov- eries. P/NP or letter grading.

173. Philosophy of Medicine. (4) Lecture, three to four hours; discussion, one hour (when scheduled). Focus on questions like what is health, what is well- being, what is mental disorder, and what is disability. Consideration of naturalistic, normative, and social constructionist types of answers, and error theories. Consideration of roles that fact, value, statistical norms, normal variation, normal function, and harm might have in these concepts. Study of consequences of different accounts of these concepts for people with minority bodies, minds, and sexualities, and for decisions about cure, enhancement, and reproduc- tion. P/NP or letter grading.

174. Topics in Theory of Knowledge. (4) Lecture, three to four hours; discussion, one hour (when scheduled). Preparation: course 21. Intensive investiga- tion of one or two selected topics or works in theory of knowledge, such as priori knowledge, problem of in- duction, analytical propositions, meaning, truth, realism, foundationalism, epistemic intuitions, tracking, closure, reliability, internalism, and externalism, among others. May be repeated for credit with consent of in- structor. P/NP or letter grading.

M175. Topics in Philosophy of Religion. (4) (Same as Religion M175.) Lecture, three hours; discussion, one hour (when scheduled). Preparation: course 21. 22. Intensive investiga- tion of one or two selected topics or works in theory of knowledge, such as priori knowledge, problem of in- duction, analytical propositions, meaning, truth, realism, foundationalism, epistemic intuitions, tracking, closure, reliability, internalism, and externalism, among others. May be repeated for credit with consent of in- structor. P/NP or letter grading.

176. Metaphysics of Modality. (4) Lecture, four hours; discussion, one hour (when scheduled). Topics re- commended: course 136. Second course in two-term se- quence (also see course 136). Metaphysical founda- tions of modal logic and philosophical basis of model theory. What is modal logic? What is possible worlds? What is accessibility relation? Is modal logic one logic or one theory? Is its focus logical or metaphysical nature? Are both notions really distinct? How meta- physical theories of modal arrangement? What is its accessibility relation to (1) Haecceitam and (2) Aristotelian Essentialism? P/NP or letter grading.

177A. Existentialism. (4) Lecture, four hours; discussion, one hour. Preparation: one philosophy course. Analysis of philosophical problems, and views of some of the following: Kierkegaard, Nietzsche, Heidegger, Jaspers, Sartre, Marx, and Camus. Possible topics include metaphysical foundations, nature of mind, freedom, presence of being, and existential psychoanalysis. May be repeated for credit with consent of instructor. P/NP or letter grading.

177B. Historical Studies in Existentialism. (4) Preparation: one philosophy course. Study of central philosophical texts of one of the following: Nietzsche, Heidegger, Jaspers, Buber, Sartre, or Camus. Em- phasis on explanation and interpretation of the texts. May be repeated for credit with consent of instructor.

178. Phenomenology. (4) Lecture, three hours; dis- cussion, one hour. Preparation: two philosophy courses. Introduction to phenomenological method of approaching philosophical problems via works of some of the following: Brentano, Husserl, Heidegger, Scheler, Sartre, Merleau-Ponty, Ricoeur. Topics in- clude ontology, epistemology, and particularly philos-ophical works of one or two authors. May be repeated for credit with consent of instructor.

179. Asian Philosophy. (4) Lecture, three hours; dis- cussion, one hour. Examination of central concepts and arguments in Buddhist or Chinese philosophy. Appropriate parallels to social concepts in Western tradition. May be repeated for credit with consent of instructor. P/NP or letter grading.

180. Philosophy of Action. (4) Lecture, three to four hours; discussion, one hour (when scheduled). Prepara- tion: two philosophy courses. Study of various con- cepts employed in understanding human action. Topics may include rational choice, desire, intention, rationalization, split, and self-deception. May be repeated for credit with consent of instructor. P/NP or letter grading.


182. Elements of Metaphysics. (4) Lecture, three hours; discussion, one hour. Preparation: course 21. Study of basic metaphysical questions; nature of physical world, of minds, and of universals; and an- swers provided by alternative systems (e.g., phenomen- alism, materialism, dualism). P/NP or letter grading.

183. Theory of Knowledge. (4) Lecture, three hours; discussion, one hour. Preparation: course 21. Problem-oriented study of contemporary classics of episte- mology on topics such as skepticism, justification, foundationalism, epistemic intuitions, tracking, closure, reliability, internalism, and externalism, among others. May be repeated for credit with consent of in- structor. P/NP or letter grading.

184. Topics in Metaphysics. (4) Lecture, three hours; discussion, one hour. Preparation: course 21. Intensive investigation of one or two topics or works in meta- physics that is especially relevant to philosophical theory, such as metaphysical positions on gender and women as they have been applied to study of philosophy. Emphasis on the- oretical positions on gender and women as they have been applied to study of philosophy. May be repeated for credit with consent of instructor. P/NP or letter grading.

185. Major Philosophers of 20th Century. (4) (4) Lecture, three hours; discussion, one hour. Preparation: two philosophy courses. Study of writings of one or more major modern philosophers (e.g., Russell, Moore, Wittgenstein, Carnap, Quine). May be re- peated for credit with consent of instructor. P/NP or letter grading.

M187. Topics in Feminist Philosophy: Metaphysics and Epistemology. (4) (Same as Gender Studies M110C.) Lecture, three hours; discussion, one hour (when scheduled). Preparation: for Gender Studies ma- jors: Gender Studies 10; for other students: one phi- losophy course. Examination in depth of different the- oretical positions on gender and women as they have been applied to study of philosophy. Emphasis on the- oretical contributions made by new scholarship on women in philosophy. Critical study of concepts and principles that arise in discussion of women’s rights and liberation. Philosophical approach to feminist the- ories. May be repeated for credit with consent of in- structor. Letter grading.

Special Studies

188SA. Individual Studies for USIE Facilitators. (1) Tutorial, to be arranged. Enforced corequisite: Honors Collegium 101E. Limited to USIE Facilita- tors. Individual study in regularly scheduled meetings with faculty mentor to discuss selected USIE seminar
Group I: History of Philosophy


203. Seminar: History of Ancient Philosophy. (4) Seminar, four hours. Selected problems and philosophers. May be repeated for credit with consent of instructor. S/U or letter grading.

206. Topics in Medieval Philosophy. (4) Lecture, four hours. Study of philosophy and theology of one or several medieval philosophers such as Augustine, Anselm, Abelard, Aquinas, Scotus, or Ockham or study of single area such as logic or theory of knowledge in several medieval philosophers. Topics announced each term. May be repeated for credit with consent of instructor. S/U or letter grading.

207. Seminar: History of Medieval and Renaissance Philosophy. (4) Seminar, four hours. Selected problems and philosophers. May be repeated for credit with consent of instructor. S/U or letter grading.

C208. Hobbes. (4) Lecture, three hours; discussion, one hour. Preparation: one philosophy course. Hobbes' political philosophy, especially Leviathan, with attention to its relevance to contemporary political philosophy. May be concurrently scheduled with course C108. S/U or letter grading.

C209. Descartes. (4) Lecture, four hours; discussion, one hour. Study of works of Descartes, with discussion of issues such as problem of skepticism, foundations of knowledge, existence of God, relation between mind and body, and connection between science and metaphysics. May be concurrently scheduled with course C109. S/U or letter grading.

C210. Spinoza. (4) Lecture, three hours. Selected topics in philosophy of Spinoza. May be concurrently scheduled with course C110, in which case there is two-hour biweekly discussion meeting, plus additional readings and longer term paper for graduate students. S/U or letter grading.

C211. Leibniz. (4) Lecture, three hours. Selected topics in philosophy of Leibniz. May be concurrently scheduled with course C111, in which case there is two-hour biweekly discussion meeting, plus additional readings and longer term paper for graduate students. S/U or letter grading.

C212. Locke and Berkeley. (4) Lecture, four hours. Preparation: one philosophy course. Study of philosophical theories of Locke and Berkeley, with emphasis in some cases on one or the other. Limited to 30 students when concurrently scheduled with course C112. S/U or letter grading.

C214. Hume. (4) Lecture, three hours; discussion, one hour. Selected topics in philosophy of Hume. May be repeated for credit with consent of instructor. May be concurrently scheduled with course C114. S/U or letter grading.

C215. Kant. (4) Lecture, three hours; discussion, one hour. Requisite: course 212 or 22. Study of Kant's views on related topics in theory of knowledge, ethics, and political philosophy. May be repeated for credit with consent of instructor. Concurrently scheduled with course C115. S/U or letter grading.

216. 19th-Century Philosophy. (4) Seminar, four hours. Topics in 19th-century philosophy. May be repeated for credit with consent of instructor. S/U or letter grading.

C219. Topics in History of Philosophy. (4) Lecture, three hours; discussion, one hour. Study of selected philosophers or themes in history of philosophy from different periods (e.g., medieval, modern, and early modern). May be repeated for credit with consent of instructor. Concurrently scheduled with course C119. S/U or letter grading.

C220. Seminar: History of Philosophy. (4) Seminar, three hours. Selected problems and philosophers which may be from different periods. May be repeated for credit with consent of instructor. S/U or letter grading.

Group II: Logic, Semantics, and Philosophy of Science

221A. Topics in Set Theory. (4) Lecture, three hours. Requisite: Mathematics M114S. Sets, relations, functions, partial and total orderings; well-orderings. Ordinal and cardinal arithmetic, finiteness and infinity, continuum hypothesis, inaccessible numbers. Formalization of set theory; Zermelo/Fraenkel; von Neumann/Gödel theory. May be repeated for credit with consent of instructor. S/U or letter grading.

C224. Philosophy of Physics. (4) Lecture, four hours. Content varies from term to term. May be repeated for credit with consent of instructor. May be concurrently scheduled with course C128. S/U or letter grading.

C225. Probability and Inductive Logic. (4) Formerly numbered 225A. Lecture, three hours; discussion, one hour (when scheduled). Requisite: course 211. Review of basic probability theory and Bayesian statistics. Topics may include interpretations of probability, Bayesian and non-Bayesian confirmation theory, paradoxes of confirmation, coherence, and conditioning. May be concurrently scheduled with course C133B. S/U or letter grading.

C226. Seminar: Topics in Social Science. (4) Lecture, four hours. Content varies from term to term. May be repeated for credit with consent of instructor. S/U or letter grading.

C227. Philosophy of Social Science. (4) Lecture, four hours. Examination of philosophical problems concerning concepts and methods used in social sciences. Topics may include relation between social processes and individual psychology, logic of explanation in social sciences, determinism and spontaneity in history, interpretation of cultures radically different from one's own. Strongly recommended. Co-requisite: two courses in logic. May be repeated for credit with consent of instructor. S/U or letter grading.

228A. Philosophy of Language. (4) Lecture, four hours. Topics may include scope, function, and methodology of philosophical investigation. Requisite: course 211. Syntax, semantics, pragmatics. Semantical concept of truth, sense and denotation, synonymy and analyticity, modalities and tenses, indirect discourse, indexical terms, semantical paradoxes. May
be repeated for credit with consent of instructor. Concurrently scheduled with course C127A. S/U or letter grading.

C228B. Philosophy of Language. (4) Lecture, four hours; discussion, one hour. Requisite: course 31. Course C228B is not requisite to C228B. Selected topics similar to those considered in course C228A, but at more advanced and technical level. May be repeated for credit with consent of instructor. Concurrently scheduled with course C127B. S/U or letter grading.

C228C. Philosophy of Language. (4) Lecture, four hours; discussion, one hour. Requisite: course 31. Recommended: course C228A or C228B. Selected topics similar to those considered in course C228B, but with focus on contemporary figures. May be repeated for credit with consent of instructor. Concurrently scheduled with course C127C. S/U or letter grading.

230. Seminar: Logic. (4) Seminar, four hours. May be repeated for credit with consent of instructor. S/U or letter grading.

231. Seminar: Intensional Logic. (4) Seminar, four hours. Topics may include logic of sense and denotation, modal logic, logic of demonstratives, epistemic logic, intensional logic of Principia Mathematica, possible worlds semantics. May be repeated for credit with consent of instructor. S/U or letter grading.

232. Philosophy of Science. (4) Seminar, three hours. Selected topics in philosophy of science. May be repeated for credit with consent of instructor. S/U or letter grading.

233. Seminar: Philosophy of Physics. (4) Seminar, four hours. May be repeated for credit with consent of instructor. S/U or letter grading.

234. Topics in Philosophy of Science. (4) Seminar, three hours. One or more selected topics in philosophy of science. May be repeated for credit with consent of instructor. May be used to satisfy special area requirement. S/U or letter grading.

235. Philosophy of Mathematics. (4) Seminar, three hours. Selected topics in philosophy of mathematics. May be repeated for credit with consent of instructor. S/U or letter grading.

Group III: Ethics and Value Theory

241. Topics in Political Philosophy. (4) Seminar, four hours. Requisite: course 150 or C136 or 157A or 157B or equivalent. Examination of one or more topics in political philosophy (e.g., justice, democracy, human rights, political obligation, alienation). May be repeated for credit with consent of instructor. S/U or letter grading.

244. Topics in Value Theory: Rationality and Action. (4) Seminar, three hours. Selected topics on normative issues in practical rationality or philosophy of action. Topics may include moral and practical dilemmas, nature of reasons for action, rationality of morality and prudence, weakness of will, freedom of will, and decision theory. May be repeated for credit with consent of instructor. S/U or letter grading.

C244B. Topics in Value Theory: Moral Responsibility and Free Will. (4) Lecture, three hours; discussion, one hour. Preparation: one philosophy course. Examination of philosophical problems surrounding moral responsibility and free will, using contemporary or classical readings in attempt to better understand kind of freedom required for moral agents. May be repeated for credit. May be concurrently scheduled with course C151B. S/U or letter grading.

245. History of Ethics: Modern. (4) Lecture, three hours; discussion, one hour. Intensive study of Kant’s ethical theory. May be repeated for credit with consent of instructor. May be concurrently scheduled with course C151B, S/U or letter grading.

246. Seminar: Ethical Theory. (4) Seminar, four hours. Selected topics. Content varies from term to term. May be repeated for credit with consent of instructor. S/U or letter grading.

C247. Topics in Political Philosophy. (4) Lecture, three hours; discussion, one hour. Analysis of some basic concepts in political theory. May be repeated for credit with consent of instructor. May be concurrently scheduled with course C156. S/U or letter grading.

248. Problems in Moral Philosophy. (4) Seminar, four hours. Intensive leading current problems in moral philosophy. May be repeated for credit with consent of instructor. S/U or letter grading. C253B. Topics in Ethical Theory: Metaethics. (4) Lecture, three hours; discussion, one hour. Requisite: course 22. Study and analysis of basic concepts, selected problems, and contemporary issues in metaethics. Topics may include analysis of moral language, justification of moral beliefs, moral realism, skepticism, free will, moral motivation, etc. May be repeated for credit with consent of instructor. May be concurrently scheduled with course C153B. S/U or letter grading.

254. Legal Theory Workshop. (1 to 8) Seminar, three hours. Students engage with work in progress on philosophical issues in law of leading scholars from around country. Presentation of works in progress by visiting scholars every two weeks. Study by students of papers to be presented in class to background in relevant topics and to be prepared for speakers’ presentations. Presentation of student papers to class for discussion. Substantial analytical paper required. S/U or letter grading.

254A-254B. Legal Theory Workshop. (3-1) Seminar, three hours. Course 254A is requisite to 254B. Students engage with work in progress on philosophical issues in law of leading scholars from around country. Presentation of works in progress by visiting scholars every two weeks. Study by students of papers to be presented to gain background in relevant topics and to be prepared for speakers’ presentations. Presentation of student papers to class for discussion. Substantial analytical paper required. Concurrently scheduled with Law 555. In Progress (254A) and S/U or letter (254B) grading.

255. Seminar: Aesthetic Theory. (4) Seminar, four hours. Selected topics. May be repeated for credit with consent of instructor. S/U or letter grading.

M256. Topics in Legal Philosophy. (4) Same as Law M217.) Lecture, three hours. Examination of topics such as concept of law, nature of justice, problems of punishments, legal reasoning, and obligation to obey the law. May be repeated for credit with consent of instructor.

M257. Philosophy Legal Theory. (1 to 8) Same as Law M524.) Seminar, three hours. Selected topics in philosophy of law. May be repeated for credit with consent of instructor. S/U or letter grading.

M257A-257B. Philosophy Legal Theory. (1 to 8) Seminar, three hours. Course M257A is enforced requisite to 257B. Selected topics in philosophy of law. May be repeated for credit with consent of instructor. In Progress (M257A) and S/U or letter (257B) grading.

258. Contemporary Philosophy of Law. (4) Seminar, three hours. Limited to graduate students. Recent contributions to theoretical literature on contract law. Possible topics include purpose or function of contract law, relationship of contract law to property law, whether fault should play larger (or smaller) role in contract law, remedial approaches to breach including larger role for unjust enrichment, and contract law’s treatment of fraud and deception. Readings from legal and philosophical literature. S/U or letter grading.

259. Philosophical Research in Ethics and Value Theory. (2 to 4) Seminar, two hours. Preparation: completion of proposition requirement. Presentation of ongoing research by graduate students. Participants make presentations, analyze and discuss presentations of others, and read and discuss philosophical texts related to presentations. Must be taken for 4 units in quarter in which student presents own research. May be repeated for credit with consent of instructor. S/U grading.

Group IV: Metaphysics and Epistemology

271. Seminar: Topics in Metaphysics and Epistemology. (4) Seminar, three hours. May be repeated for credit with consent of instructor. S/U or letter grading.

272. Topics in Philosophy of Mind and Language. (4) Seminar, three hours. One or more selected topics in philosophy of mind and/or language. May be repeated for credit with consent of instructor. May not be used to satisfy special area requirement. S/U or letter grading.

275. Human Action. (4) Preparation: two upper-division philosophy courses. Examination of theories, concepts, and problems of human actions. Topics may include analysis of intentional actions; de-terminism and freedom; nature of explanations of intentional actions. May be repeated for credit with consent of instructor.

280. 20th-Century Continental Philosophy. (4) Seminar, three hours. Selected topics in 20th-century continental European philosophy. May be repeated for credit with consent of instructor. S/U or letter grading.

281. Seminar: Philosophy of Mind. (4) Seminar, three hours. May be repeated for credit with consent of instructor. S/U or letter grading.

282. Seminar: Metaphysics. (4) Seminar, three hours. May be repeated for credit with consent of instructor. S/U or letter grading.

283. Seminar: Theory of Knowledge. (4) Seminar, three hours. May be repeated for credit with consent of instructor. S/U or letter grading.

284. Seminar: Philosophy of Perception. (4) Seminar, three hours. Examination of topics such as nature and validity of psychoanalytic explanations and interpretations, psychoanalysis and language, metapsychological concepts such as the unconscious ego, id, super ego, defense mechanisms, and psychoanalytic conception of human nature. S/U or letter grading.

286. Philosophy of Psychology. (4) Seminar, four hours. Relevance of computer simulation to accounts of thinking and meaning; relations between semantical theory and learning theory; psychological aspects of theory of syntax; behaviorism, functionalism, and alternatives; physiology and psychology. S/U or letter grading.

287. Seminar: Philosophy of Language. (4) Seminar, three hours. May be repeated for credit with consent of instructor. S/U or letter grading.

288. Seminar: Wittgenstein. (4) Seminar, three hours. May be repeated for credit with consent of instructor. S/U or letter grading.

289. Seminar: Philosophy of Religion. (4) Seminar, four hours. May be repeated for credit with consent of instructor. S/U or letter grading.

Special Studies

290. Workshop: Philosophy of Language. (2 or 4) Seminar, two hours. Ongoing discussion of current issues in philosophy of language based on contemporary texts and current research. Presentations of ideas by attending faculty and graduate students with open discussion. May be repeated for credit with consent of instructor. S/U grading.

291. Workshop: Philosophy of Mathematics. (4) Seminar, three hours. Ongoing discussion of current issues in philosophy of mathematics based on contemporary texts and current research. Presentations of ideas by attending faculty and graduate students with open discussion. May be repeated for credit with consent of instructor. S/U grading.

291. Workshop: Philosophy of Mathematics. (4) Seminar, three hours. Ongoing discussion of current issues in philosophy of mathematics based on contemporary texts and current research. Presentations of ideas by attending faculty and graduate students with open discussion. May be repeated for credit with consent of instructor. S/U grading.

292. Workshop: Philosophy of Mathematics. (4) Seminar, three hours. Ongoing discussion of current issues in philosophy of mathematics based on contemporary texts and current research. Presentations of ideas by attending faculty and graduate students with open discussion. May be repeated for credit with consent of instructor. S/U grading.
ASTRONOMY

aminations. S/U grading.
and read and discuss philosophical texts related to
tations, analyze and discuss presentations of others,
dents or faculty members. Participants make presen-
tions may be repeated for credit with con-
s of instructor. S/U grading.

375. Teaching Apprentice Practicum. (1 to 4) Seminar,
in to be arranged. Preparation: apprentice per-
sonnel employment as teaching assistant, associate,
or fellow. Teaching apprenticeship under active guid-
ance and supervision of regular faculty member re-
ponsible for curriculum and instruction at UCLA. May
be repeated for credit. S/U grading.

495. Teaching College Philosophy. (2 to 4) Seminar,
in to be arranged. Seminars, workshops, and apprentice
Teaching. Selected topics, including evaluation scales,
various teaching strategies and their effects, and other
and graduate. May be repeated for credit. S/U grading.

501. Cooperative Program. (2 to 8) Preparation:
consent of UCLA graduate adviser and graduate
dean, and host campus instructor, department chair,
and graduate dean. Used to record enrollment of
UCLA students in courses taken under cooperative ar-
rangements with USC. S/U grading.

596. Directed Individual Studies. (2 to 12) Tutorial,
to be arranged. Properly qualified graduate students
who wish to pursue one problem through reading or
advanced study may do so if their proposed project is
acceptable to one staff member. May be repeated for
credit. S/U grading.

597. Directed Studies for Graduate Examinations.
(2 to 8) Tutorial, to be arranged. Preparation for MA
comprehensive examination or PhD oral qualifying ex-
aminations. S/U grading.

599. Research for PhD Dissertation. (2 to 12) Tuto-
rial, to be arranged. Preparation: advancement to PhD
 candidacy. May be repeated for credit. S/U grading.

Physics and Astronomy

College of Letters and Science
2-707 Physics and Astronomy Building
Box 951547
Los Angeles, CA 90095-1547

Physics and Astronomy
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David Saltzberg, PhD, Chair
Wesley C. Campbell, PhD, Vice Chair, Resources
Jay Hauser, PhD, Vice Chair, Academic Affairs
Alice E. Shapley, PhD, Vice Chair, Astronomy

Professors

Katsushi Arisaka, PhD
Zvi Bern, PhD
Dolores Bozovic, PhD
Stuart E. Brown, PhD
Robijn F. Bruinsma, PhD
Troy A. Carter, PhD
Sudip Chakravarty, PhD
Eric D’Hoker, PhD
Steven R. Furlanetto, PhD
Graciela B. Gelmínez, PhD
Andrea M. Ghez, PhD (Lauren B. Leichtman and
Arthur E. Levine Endowed Professor of
Astrophysics)
Michael Gutperle, PhD
Bradley M. Hansen, PhD
Jay Hauser, PhD
Károly Holczer, PhD
Huan Z. Huang, PhD
Eric R. Hudson, PhD
Frank S. Jenko, PhD
David C. Jewitt, PhD
Hong-Wen Jiang, PhD
Per J. Kraus, PhD
Alexander Kusenko, PhD
James E. Larkin, PhD
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Matthew A. Malkan, PhD
Jean-Luc Margot, PhD
Thomas G. Mason, PhD
Mayank R. Mehta, PhD
Jean-Noël microstructure
Warren B. Mori, PhD
Mark R. Morris, PhD
Pietro Musumeci, PhD
William I. Newman, PhD
Christoph Niemeyer, PhD
Rene A. Ong, PhD
Seth J. Putterman, PhD
Brian C. Regan, PhD
James Roserzweig, PhD
David Saltzberg, PhD
Alice E. Shapley, PhD
E.T. Tomboulis, PhD
Tommaso L. Treu, PhD
Yaroslav Tserkovnyak, PhD
Jean L. Turner, PhD
Vladimir V. Vassilev, PhD
Karen L. Wang, PhD
Gary A. Williams, PhD
Giovanni Zocchi, PhD

Professors Emeriti

Ernest S. Abers, PhD
Eric E. Becklin, PhD
Charles D. Buchanan, PhD
W. Gilbert Clark, PhD
John M. Cornwall, PhD
Ferdinand V. Coroniti, PhD
Robert D. Cousins, PhD
Sergio Ferrara, PhD
Robert J. Finkelstein, PhD
Christian Fronsdal, PhD
Walter N. Gekelman, PhD
George Grünz, PhD
Roy P. Haddock, PhD
George J. Igo, PhD
Ian S. McLean, PhD
George J. Morales, PhD
Steven A. Moszkowski, PhD
C. Kumar N. Patel, PhD
Claudio Pellegrini, PhD
Reiner L. Stenzel, PhD
Roger K. Ulrich, PhD
Alfred Y. Wong, PhD
Chun-Wa Wong, PhD
Edward L. Wright, PhD (David S. Saxon Presidential
Professor Emeritus of Physics)

Associate Professors

Wesley C. Campbell, PhD
Michael P. Fitzgerald, PhD
Snadar Naoz, PhD (Howard and Astrid Preston Term
Professor of Astrophysics)

Assistant Professors

Micha Batscht, PhD
Tuan H. Do, PhD

Scope and Objectives

Since the time of the ancient Greeks, a natural affini-
ity has existed between astronomy and physics, and
the intellectual development of the two disciplines
has often proceeded synergistically. Newton’s dis-
coveries of the laws of mechanics and universal gravi-
tation not only explained motion on Earth, but
brought the heavens and Earth into a single quanti-
tative framework in which both are governed by
the same laws. The revolutionary discoveries of twenti-
eth-century physics—quantum mechanics and nu-
clear physics—were rapidly adopted by astrono-
mers to interpret the spectroscopic observations of
the stars and to construct accurate models of stellar
structure. Einstein’s general theory of relativity pre-
dicted the expansion of the universe and that most
awesome compaction of matter—the black hole.

Today astronomers study the accretion of matter
onto supermassive black holes in quasars and
search the most distant regions of the universe to
learn about the exotic physical conditions that ex-
ist when the universe’s expansion was only frac-
tions of a second old. By measuring the gravitational
interactions on distance scales from galaxies to the
vast superclusters of galaxies, astronomers have
concluded that most of the universe’s matter is dark
or nonluminous; physicists have speculated that
this dark matter may consist of yet undiscovered
exotic particles that are predicted by the most ad-
vanced theories of elementary particle physics.

Department of Physics and Astronomy faculty
members and students are able to study the uni-
verse in the holistic manner that is demanded by
the breadth of these two disciplines.

Undergraduate Study

The Department of Physics and Astronomy offers a
choice of four undergraduate majors: Astrophysics
BS, Biophysics BS, Physics BS, and Physics BA. Each
course taken to fulfill any of the requirements for
the majors must be taken for a letter grade.

Astronomy Courses

The department offers general courses to all UCLA
students, including those who are not science
oriented.

Astronomy 3 is the fundamental one-term course
for students who do not major in physical sciences
and should be taken in the first or second year.

Astronomy 4, 5, and 6 develop the topics covered in
course 3 to somewhat greater depths but are still
aimed at nonscience majors. Course 4 discusses
stellar and supermassive black holes; course 5 concentrates on the problem of life in the universe; course 6 discusses the structure and evolution of the universe.

Astronomy 81 and 82 are general survey courses recommended for science majors in their second year. They systematically introduce astrophysics and require a good background in physics and mathematics (at least two terms of the Physics 1 series and two terms of the Mathematics 31and 32 series).

Students of junior and senior standing in Physics or related sciences are invited to select any of these courses: Astronomy 115, 117, 127, 140, 180.

**Physics Courses**

Students who wish to use physics to satisfy part of the general education requirements in the physical sciences and who have no mathematics background beyond the high school mathematics required for admission to UCLA may take Physics 10.

Physics 1Q is intended for entering freshman Physics majors and other interested students. Although it is not a required course or a part of or prerequisite to any general physics sequence of courses, its purpose is to indicate the nature of current research problems in physics on a level intended to be attractive to entering students with a good high school science and mathematics background.

Physics 1A, 1B, and 1C, or 1AH, 1BH, 1CH, and 1CH form sequences of courses in general physics for majors in Physics.

The department takes into account prior preparation in physics. If students feel their background would permit acceleration, they may be exempted from one course in the 1A, 1B, 1C sequence by taking the final examination with a class at the end of any term. This serves as a placement examination. A satisfactory score on one or both parts of the College Board Advanced Placement Placement Physics C Test may also serve as a placement examination, but placement is not automatic. Students should discuss such possibilities with their departmental adviser.

Physics 5A, 5B, 5C form a one-year sequence of courses in basic physics for students in the biological and health sciences.

Any two or more courses from Physics 1A, 1AH, and 5A, are limited to a total of 6 units of credit.

**Astrophysics BS**

**Learning Outcomes**

The Astrophysics major has the following learning outcomes:

- Ability to apply knowledge of classical mechanics, electromagnetism, quantum mechanics, and thermal physics to understand and analyze a broad variety of physical phenomena
- Application and improvement of proficiency in mathematics skills in calculus, differential equations, and linear algebra
- Understanding and analysis of phenomena in astronomy and astrophysics including planets, stars, galaxies, and cosmology
- Ability to make accurate and precise physical measurements using modern laboratory instruments and computerized data acquisition
- Ability to critically analyze and interpret data in order to draw valid scientific conclusions
- Ability to present clear written and oral accounts of scientific results
- Scientific, mathematical, computing, and laboratory skills that enable pursuit of career objectives in graduate or professional schools, in a teaching career, or in a scientific career in government or industry

**Preparation for the Major**

**Required:** Astronomy 81, 82; Physics 1A or 1AH, 1B or 1BH, 1C or 1CH, 4AL, 4BL, 17, 18L; Mathematics 31A or 31AL, 31B, 32A, 32B, 33A, 33B; Program in Computing 10A or demonstrated ability to program. Systematic study of astrophysics should begin with Astronomy 81 and 82, taken in the second year. **Recommended:** Chemistry and Biochemistry 20A.

**Transfer Students**

Transfer applicants to the Astrophysics major with 90 or more units must complete as many of the following introductory courses as possible prior to admission to UCLA: two astrophysics courses, two years of calculus, one and one half years of calculus-based physics with laboratory for majors, and one programming course.

Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

**The Major**


**Honors Program**

Senior majors in Astrophysics with a 3.5 grade-point average in all astronomy, mathematics, and physics courses are eligible for the honors program in astrophysics. In addition to completing all courses required for the major, students must complete two terms of Astronomy 199. To receive honors and highest honors at graduation, the grade-point average must remain at 3.5 and 3.75 or better, respectively, and work in course 199 must reflect original research and be accepted by the departmental honors committee.

**Biophysics BS**

The goal of the Biophysics major is to provide students with an undergraduate background that will enable them to enter competitive graduate programs in biophysics, molecular biology, and biological physics. It also aims at providing students with a solid, quantitative background for careers in the medical field of the future as well as in molecular biology, neuroscience, and biological physics which are all emerging as important and rapidly developing areas of physics. The major is designed to provide students with a flexible scientific/technical training that allows them to explore these different career paths and tailor their class work to their scientific interests. The program aims at providing an opportunity to the students to become scientific leaders, bringing the analytic and experimental techniques of different fields to bear on the fascinating world of the physics of living systems.

**Learning Outcomes**

The Biophysics major has the following learning outcomes:

- Ability to apply knowledge of classical mechanics, electromagnetism, quantum mechanics, and thermal physics to understand and analyze a broad variety of physical phenomena
- Application and improvement of proficiency in mathematics skills in calculus, differential equations, and linear algebra
- Ability to understand and analyze basic phenomena in biological science
- Ability to make accurate and precise physical measurements using modern laboratory instruments and computerized data acquisition
- Ability to critically analyze and interpret data in order to draw valid scientific conclusions
- Ability to present clear written and oral accounts of scientific results
- Scientific, mathematical, computing, and laboratory skills that enable pursuit of career objectives in graduate or professional schools, in a teaching career, or in a scientific career in government or industry

**Preparation for the Major**

**Required:** Physics 1A or 1AH, 1B or 1BH, 1C or 1CH, 4AL, 4BL, 17, Chemistry and Biochemistry 20A, 20B; Life Sciences 7A; Mathematics 31A or 31AL, 31B, 32A, 32B, 33A, 33B. **Recommended:** Physics 18L.

**Transfer Students**

Transfer applicants to the Biophysics major with 90 or more units must have completed the following introductory courses prior to admission to UCLA: two years of calculus, one and one half years of calculus-based physics with laboratory for majors, one year of general biology with laboratory for majors, and one year of general chemistry with laboratory for majors.

Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

**The Major**

**Required:** Physics 10SA, 110A, 110B, 112, 115A, 115B, 131, M180G, C187A, C187B; either course 144 or C186; three additional upper-division elective courses selected from one group or among the three groups.

**Group A (Physics of Neuroscience):** Neuroscience M101A, Physics 117, C186.

**Group B (Biological Physics):** Physics 117, 144, Mechanical and Aerospace Engineering C286.

**Group C (Molecular and Cellular Biophysics):** Chemistry 153A, 153L, Molecular, Cell, and Developmental Biology 100 or 165A.

Students will be advised when a course has additional lower-division requirements.
An overall 2.0 grade-point average in all upper-division courses is required.

Physics BS

The Physics BS major should be pursued if students intend to continue toward the PhD in Physics.

Learning Outcomes

The Physics major has the following learning outcomes:

- Ability to apply knowledge of classical mechanics, electromagnetism, quantum mechanics, and thermal physics to understand and analyze a broad variety of physical phenomena
- Application and improvement of proficiency in mathematics skills in calculus, differential equations, and linear algebra
- Ability to understand and analyze physical phenomena in one or more special areas of physics of choice, which facilitates subsequent research
- Ability to make accurate and precise physical measurements using modern laboratory instruments and computerized data acquisition
- Ability to critically analyze and interpret data in order to draw valid scientific conclusions
- Ability to present clear written and oral accounts of scientific results
- Scientific, mathematics, computing, and laboratory skills that enable pursuit of career objectives in graduate or professional schools, in a teaching career, or in a scientific career in government or industry

Preparation for the Major

Required: Physics 1A or 1AH, 1B or 1BH, 1C or 1CH, 4AL, 4BL, 17, 18L; Chemistry and Biochemistry 20A; Mathematics 31A or 31AL, 31B, 32A, 32B, 33A, 33B. A detailed brochure on the major is available from the Undergraduate Office, 1-707A Physics and Astronomy Building.

Transfer Students

Transfer applicants to the Physics BS major with 90 or more units must complete the following introductory courses prior to admission to UCLA: two years of calculus, one and one half years of calculus-based physics with laboratory for majors, and one general chemistry course for majors.

Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

The Major

Required: Physics 105A, 105B, 110A, 110B, 112, 115A, 115B, 115C, 131. The remainder of the course of study consists of a plan, to be worked out by students in consultation with their designated departmental adviser, that details which courses they take to complete the degree. There are four overall requirements: (1) the plan must be worked out five terms before students expect to graduate; (2) the plan must include two courses from Physics 118 and 180A through 180Q, which should be taken in the senior year; (3) there must be three additional upper-division courses in the plan, preferably selected from Physics 108, 114, 117, M122, 123, 124, 126, 127, 128, 132, 140A, 140B, 144, 150, C187A; (4) there must be written rationale for the plan. Except for the Physics 180 laboratories, the courses need not be in the Physics and Astronomy Department. However, it is expected that the courses fit into a coherent structure. It is important that the structure and rationale are thought out carefully, as the plan must be endorsed by the designated adviser and be approved by the departmental academic affairs committee. Preapproved plans of study are available from the undergraduate advisers. A C average is required in all courses taken to satisfy the major requirements. Students preparing for graduate school should take additional courses in physics and mathematics. Physics 108, 114, 117, M122, 123, 124, 126, 132, 140A, and 140B are recommended.

Honors Programs

The department offers three honors programs leading to graduation with honors or highest honors in physics. Students are eligible after completing the preparation for the major and four upper-division physics courses with an overall grade-point average of 3.0 and a 3.5 GPA in upper-division physics and mathematics courses. Contact the Undergraduate Office for a complete description of the programs and an application.

Physics BA

The Physics BA major is intended to provide students with a strong background in physics, yet allow students flexibility to study other fields as well. It should be of particular interest to students who want to double major or who want to teach science. Students who intend to continue work toward the PhD in Physics are advised to pursue the Physics BS.

Learning Outcomes

The Physics major has the following learning outcomes:

- Ability to apply knowledge of classical mechanics, electromagnetism, quantum mechanics, and thermal physics to understand and analyze a broad variety of physical phenomena
- Application and improvement of proficiency in mathematics skills in calculus, differential equations, and linear algebra
- Ability to critically analyze and interpret data in order to draw valid scientific conclusions
- Ability to present clear written and oral accounts of scientific results
- Scientific, mathematical, computing, and laboratory skills that enable pursuit of career objectives in graduate or professional schools, in a teaching career, or in a scientific career in government or industry

Preparation for the Major

Required: Physics 1A or 1AH, 1B or 1BH, 1C or 1CH, 4AL, 4BL, 17, 18L; Chemistry and Biochemistry 20A; Mathematics 31A or 31AL, 31B, 32A, 32B, 33A, 33B. A detailed brochure on the major is available from the Undergraduate Office, 1-707A Physics and Astronomy Building.

Transfer Students

Transfer applicants to the Physics BA major with 90 or more units must complete the following introductory courses prior to admission to UCLA: two years of calculus, one and one half years of calculus-based physics with laboratory for majors, and one general chemistry course for majors.

Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

The Major


Graduate Study

Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Division website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Graduate Degrees

The Department of Physics and Astronomy offers the Master of Arts in Teaching (MAT) degree in Astronomy and Astrophysics, Master of Science (MS) and Doctor of Philosophy (PhD) degrees in Astronomy and Astrophysics, Master of Arts in Teaching (MAT) degree in Physics, and Master of Science (MS) and Doctor of Philosophy (PhD) degrees in Physics.

Astronomy

Lower-Division Courses

3. Nature of Universe. (5) Lecture, three hours; discussion, two hours. Not open to students with credit for or currently enrolled in course 81 or 82. No special mathematical preparation required beyond that necessary for admission to UCLA in freshman standing. Course for general UCLA students, normally not intending to major in physical sciences, on development of ideas in astronomy and what has been learned of nature of universe, including recent discoveries and developments. P/NP or letter grading.

4. Black Holes and Cosmic Catastrophes. (4) Lecture, three hours; discussion, one hour. Essentially nonmathematical course for general UCLA students that discusses black holes and related cosmic catastrophes. White dwarfs, neutron stars, and black holes are compact objects formed in violent events that terminate lives of stars and are associated with some of most energetic and explosive phenomena in astronomy: planetary nebulae and novae (white dwarfs), supernovae, pulsars, galactic X-ray sources, and gamma ray bursts. Supermassive black holes form in nucleus of young galaxies, and gravitational accretion of matter onto black holes powers most energetic objects in universe—quasars. Universe was born in ultimate cosmic explosion—Big Bang—that may have derived its energy from quantum mechanical vacuum. P/NP or letter grading.

5. Life in Universe. (4) Lecture, four hours; discussion, one hour. Preparation: prior introduction to astronomy. Life on Earth and prospects for life elsewhere in context of evolution of universe from simple to complex. Course material primarily from astronomy and bi-
115. Statistical Mechanics and Its Application to Astrophysics. (4) Lecture, three hours; discussion, one hour. Requisites: Mathematics 32B, 33A, 33B, Physics 1A, 1B, and 1C (or 1A, 1B, and 1CH). Particle distributions, partition functions, black body radi-

ation, Gaha equation, degeneracy. Applications to stellar atmospheres, stellar interiors, and interstellar medium. P/NP or letter grading.


140. Stellar Systems and Cosmology. (4) Lecture, three hours; discussion, one hour. Designed for junior/senior Astrophysics and Physics majors. Properties of star clusters and galaxies, with particular emphasis on Milky Way galaxy. Designed for undergraduate research project. Open to students. P/NP or letter grading.

189HC. Honors Contracts. (1) Tutorial, two hours. Limited to 20 students. Designed as adjunct to lower-division lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities. May be repeated for credit. Honors content noted on transcript. P/NP or letter grading.

190. Research Group Seminars. (4) Lecture, three hours. Designed to bring together students undertaking supervisory research seminar in research setting with one or more faculty members to discuss their own work or related work in discipline. Lab by one supervising faculty member. May be repeated for credit. P/NP grading.

191. Research Group Seminars. (4) Lecture, three hours. Designed to bring together students undertaking supervisory research seminar in research setting with one or more faculty members to discuss their own work or related work in discipline. Lab by one supervising faculty member. May be repeated for credit. P/NP grading.

Graduate Courses


277A-277B. Astronomy Research Project. (6–6) Tu-
torial, to be arranged. Designed for second-year graduate astronomy students. Two-term research project planned in conjunction with faculty adviser on any suitable research topic in astronomy or astrophysics, culminating in written report at end of second term. S/U (277A) and letter (277B) grading.

278. Special Topics in Astronomy. (2 or 4) Seminar, to be arranged. Informal course with lecture/seminar format, focusing on one of set of specific topics in astronomy. S/U (2-unit course) or letter (4-unit course) grading.
279. Seminar: Current Astronomical Research. (2) Seminar, one hour. Astronomy and astrophysics colloquium with lectures on current research by local and visiting researchers. S/U grading.


281. Quantum Mechanics for Astrophysics. (4) Lecture, four hours. Designed for departmental graduate students. Quantum mechanical topics in areas of interest for astrophysics applications. Hydrogen atom, radiative transitions, complex atoms, molecular spectroscopy including electronic, vibrational, and rotational transition, nuclear reaction theory. Letter grading.

282. High-Energy Astrophysics. (4) Lecture, three hours. Interactions of high-energy photons with matter. Telescopes and detectors (X-ray, gamma-ray, and radio), Accretion. Supernovae and gamma-ray bursts. Compact objects. Active galactic nuclei. Particle accelerators and high-energy physics. Topics include Fourier transforms, filtering, and power spectra, numerical algorithms, N-body codes, maximum likelihood, Bayesian inference, and error estimation. Letter grading.

283. Numerical and Statistical Methods. (4) Lecture, three hours. Topics selected by instructor in mathematical, numerical, and statistical methods of relevance to modern astrophysical research. Topics include Fourier transforms, filtering, and power spectra, numerical algorithms, N-body codes, maximum likelihood, Bayesian inference, and error estimation. Letter grading.

284. Order of Magnitude Astrophysics. (4) Lecture, three hours. Practice in real-time problem solving covering all fields of astrophysics. Topics selected by instructor. Students work together and individually to solve problems on blackboard using basic physics presentations and order of magnitude estimations. Letter grading.

285. Origin and Evolution of Solar System. (4) (Same as Earth, Planetary, and Space Sciences M285.) Lecture, four hours. Dynamical problems of solar system; chemical evidences from geochemistry, meteorites, and solar atmosphere; nucleosynthesis; solar origin, evolution, and termination; solar nebula, hydromagnetic processes, formation of planets and satellite systems. Content varies from year to year. May be repeated for credit. S/U grading.


596L. Advanced Study and Research at Lick Observatory. (4 to 12) Tutorial, to be arranged. Designed for graduate students who require observational experience, as well as those working on observational problems for their thesis. May be repeated at discretion of department. S/U grading.

599. PhD Research and Writing. (10 to 12) Tutorial, to be arranged. May be repeated at discretion of department. S/U grading.

Physics

Lower-Division Courses


1BH. Physics for Scientists and Engineers: Oscillations, Waves, Electric and Magnetic Fields (Honors). (5) Lecture/demonstration, four hours; discussion, one hour. Enforced requisites: course 1AH or 1A, 1B. Enforced corequisite: Mathematics 32B. Enforced preparation for upper-division physics courses. Same material as course 1B but in greater depth; recommended for Physics majors and other students desiring such coverage. P/NP or letter grading.


1CH. Physics for Scientists and Engineers: Electrodynamics, Optics, and Special Relativity (Honors). (5) Lecture/demonstration, four hours; discussion, one hour. Enforced requisites: course 1A or 1AH, 1B, Mathematics 32A, 32B. Enforced corequisite: Mathematics 33A. Recommended corequisite: Mathematics 33B. Enforced preparation for upper-division physics courses. Same material as course 1C but in greater depth; recommended for Physics majors and other students desiring such coverage. P/NP or letter grading.

4AL. Physics Laboratory for Scientists and Engineers: Electricity and Magnetism. (2) Laboratory, four hours. Enforced requisites: courses 1A or 1AH, 1B or 1BH. Enforced corequisite: course 1CH or 1C. Sound waves and electric circuits, taken by digital oscilloscopes and analyzed by Fourier transformation. Geometrical and physical optics. Conception, execution, and presentation of creative projects involving motion. Letter grading.

4BL. Physics Laboratory for Scientists and Engineers: Electricity and Magnetism. (2) Laboratory, four hours. Enforced requisites: courses 1A or 1AH, 1B or 1BH. Enforced corequisite: course 1CH or 1C. Sound waves and electric circuits, taken by digital oscilloscopes and analyzed by Fourier transformation. Geometrical and physical optics. Conception, execution, and presentation of creative projects involving motion. S/U grading.

5A. Physics for Life Sciences Majors: Mechanics and Energy. (4) Lecture, three hours; discussion, one hour; laboratory, two hours. Requisites: Life Sciences 30A, 30B, or Mathematics 3A, 3B, 3C (3C may be taken concurrently). Statics and dynamics of forces, momentum, energy, including analysis of applications to biological and biochemical systems. P/NP or letter grading.

5B. Physics for Life Sciences Majors: Thermodynamics, Fluids, Waves, Light, and Optics. (5) Lecture, three hours; discussion, one hour; laboratory, two hours. Requisite: course 5A. Thermal properties of matter, free energy, fluids, ideal gas, diffusion, oscillations, waves, sounds, light, and optics, with applications to biological and biochemical systems. P/NP or letter grading.

5C. Physics for Life Sciences Majors: Electricity, Magnetism, and Modern Physics. (5) Lecture, three hours; discussion, one hour. Requisite: course 5B. Statics and dynamics of forces, momentum, energy, including analysis of applications to biological and biochemical systems. P/NP or letter grading.

10. Physics. (4) Lecture, three hours; discussion, one hour. Not open for credit to students with credit for course 1A, 1AH, 1B, 1BH, 5A, or 6A. Special mathematical preparation beyond that necessary for admission to University in freshman standing not required. Topics include planetary motion, Newton laws, gravitation, electricity and magnetism, wave motion, light, sound, and heat, relativistic quantum mechanics, atoms, and subatomic particles. As time permits, development of physical ideas placed in cultural and historical perspective.

11. Revolutions in Physics. (4) Lecture, three hours; discussion, one hour. Survey of modern physics intended for general UCLA students. Overview of classical physics from late 19th century and its growing set of dilemmas. Revolutions of relativity and quantum mechanics that have led to much deeper understanding of structure and evolution of our Universe. Specific topics include special and general relativity, quantum mechanics, quantum field theory, and use of quantum mechanics in cosmology. Lecture, three hours; discussion, one hour. Not open for credit to students with credit for course 1A, 1AH, 1B, 1BH, 5A, or 6A. Special mathematical preparation beyond that necessary for admission to UCLA in freshman standing not required. Discussion of physics underpinnings of energy sources and consumption, with emphasis on renewables. Global view of energy balance in our lives from point of view of physical processes. Ways in which energy is used in everyday life (transportation, heating, cooking), and ways in which it is produced, covering all common sources of energy from geothermal heat to solar, wind, nuclear, and fusion. Fundamental physical limitations of each technology to master concepts such as efficiency of thermodynamic cycles and of chemical and nuclear reactions. Quantitative estimation of amount of energy users spend in their daily lives and what physical processes could produce it. P/NP or letter grading.

18L. Modern Physics Laboratory. (4) Lecture, one hour; laboratory, six hours. Requisites: courses 1A, 1B, and 1C (or 1AH, 1BH, and 1CH), 4AL, 4BL, 17. Experiments on radioactivity, scattering, Planck constant, superconductivity, superfluidity. Letter grading.

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

88. Lower-Division Current Topics in Physics. (2) Limited to freshmen/sophomores. Intensive exploration of a particular theme or topic based on current research. Consult Schedule of Classes for topics to be offered in a specific term. P/NP or letter grading.

89. Honors Seminars. (1) Seminar. Three hours. Limited to 20 students. Designed as adjunct to lower-division lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

89HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to lower-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

98A. Workshop: Numerical Computational Physics. (1) Laboratory, one hour. Introductory presentations on three most common mathematical software packages—Mathematica, Mathcad, and MATLAB. After some familiarization with most common software functions, development of student personal preferences and assessment of advantages and strong points of each by solving problems in computational physics. P/NP grading.

98X. PEERS Collaborative Learning Workshops for Life Sciences Majors. (1) Laboratory, three hours. Corequisite: associated undergraduate lecture course in physics for life sciences majors. Limited to Program for Excellence in Education and Research in Science (PEERS) students. Development of problem-solving skills and intuition in collaborative learning environment. May be repeated three times, but only 1 unit may be applied toward graduation. P/NP grading.

98XB. PEERS Collaborative Learning Workshops for Physical Sciences and Engineering Majors. (1) Laboratory, three hours. Corequisite: associated undergraduate lecture course in physics for physical sciences and engineering majors. Limited to Program for Excellence in Education and Research in Science (PEERS) students. Development of problem-solving skills and intuition in collaborative learning environment. May be repeated three times, but only 1 unit may be applied toward graduation. P/NP grading.

99. Student Research Program. (1 to 2) Tutorial (supervised research or other scholarly work), three hours per week per unit. Entry-level research for lower-division students under guidance of faculty mentor. Students must be in good academic standing and enrolled in a minimum of 12 units (excluding this course). Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP grading.

Upper-Division Courses

105A. Analytic Mechanics. (4) Lecture, three hours; discussion, one hour. Requisites: courses 1A, 1B, and 1C (or 1AH, 1BH, and 1CH), 32A, 32B, 33A, 33B, 33C. Corequisite: Mathematics 33B. Newtonian mechanics and conservation laws, gravitational potentials, calculus of variations, Lagrangian and Hamiltonian mechanics, central force problems, linear and nonlinear oscillations. P/NP or letter grading.

105B. Analytic Mechanics. (4) Lecture, three hours; discussion, one hour. Requisites: courses 1A, 1B, and 1C (or 1AH, 1BH, and 1CH), 105A. Relativity with four vectors, noninertial reference frames, dynamics of rigid bodies, coupled oscillators, normal modes of oscillation, vibrating strings, and wave propagation. P/NP or letter grading.

108. Optical Physics. (4) Lecture, three hours; discussion, one hour. Requisites: courses 1A, 1B, and 1C (or 1AH, 1BH, and 1CH), 105B. Interaction of light with matter, optical properties of a medium, wave nature of light, molecular scattering, Coherence theory, Kirchhoff formulation of diffraction theory, crystal optics, optical rotation, electro and magneto optical effects. Additional topics of fundamental or current interest. P/NP or letter grading.

110A. Electricity and Magnetism. (4) Lecture, three hours; discussion, one hour. Requisites: courses 1A, 1B, and 1C (or 1AH, 1BH, and 1CH), 131. Mathematics 32B, 33A, 33B. Electrostatics and magnetostatics. P/NP or letter grading.

110B. Electricity and Magnetism. (4) Lecture, three hours; discussion, one hour. Requisites: courses 1A, 1B, and 1C (or 1AH, 1BH, and 1CH), 110A. Mathematics 32B, 33A, 33B. Faraday law and Maxwell equations. Propagation of electromagnetic radiation. Multipole radiation and radiation from an accelerated charge. Special theory of relativity. P/NP or letter grading.

112. Thermodynamics. (4) Lecture, three hours; discussion, one hour. Requisites: courses 1A, 1B, and 1C (or 1AH, 1BH, and 1CH), 110B. Thermodynamics of macroscopic systems, distribution functions, development of student personal preferences and assessment of advantages and strong points of each by solving problems in computational physics. P/NP or letter grading.

114. Mechanics of Wave Motion and Sound. (4) Lecture, three hours; discussion, one hour. Requisites: courses 1A, 1B, and 1C (or 1AH, 1BH, and 1CH), 110B, 110A. Mathematics 32B, 33A, 33B. Vibrating systems and wave propagation in gases, liquids, and solids, including elements of hydrodynamics and elasticity. Applications in ultrasonics, low-temperature physics. Introduction to physics of solids, fluids, and physical acoustics. P/NP or letter grading.

115A. Quantum Mechanics. (4) Lecture, three hours; discussion, one hour. Enforced requisites: courses 1A, 1B, and 1C (or 1AH, 1BH, and 1CH), 17, 105A, 131. Corequisite: course 105B. Classical background. Basic ideas of quantum nature of light, wave-particle duality, Heisenberg uncertainty principle, Bohr atom, physical operators, Schrödinger equation. One-dimensional problems; harmonic oscillator, one-dimensional potential, bound states, boundary values, Classical correspondences. Letter grading.


117. Electronics for Physical Measurements. (4) Lecture, three hours; laboratory, two hours. Requisites: courses 1A, 1B, and 1C (or 1AH, 1BH, and 1CH), Mathematics 32B, 33A, 33B. Hands-on experimental course to develop understanding of design principles in modern electronics for physics measurements. Broad introduction to analog and digital electronics from practical viewpoint, followed by examination of typical circuits for scientific instrumentation and study of methods of data acquisition and signal processing. P/NP or letter grading.

118. Electronics for Physical Measurements. (4) Lecture, three hours; laboratory, four hours. Requisites: courses 1A, 1B, and 1C (or 1AH, 1BH, and 1CH), Mathematics 32A, 32B, 33A, 33B. Provides students with opportunity to apply basic knowledge of circuit design for purpose of building stand-alone circuits with function related to control or measurement. Examples of physics-oriented projects include radio-frequency detection and measurement of mechanical resonances of bar, FM transmitter, speed of sound using radio-frequency pulsed ultrasound, sun-following pointers, cosmic ray detector. P/NP or letter grading.

M122. Production and Characterization of Electronic Materials. (4) Lecture, three hours; discussion, one hour; outside study, eight hours. Requisite: course 110A or Electrical Engineering 101A. Senior-level introductory course on electronic materials of ionized gases and applications to materials processing, generation of coherent radiation and particle beams, and renewable energy sources. Letter grading.

123. Atomic Structure. (4) Lecture, three hours; discussion, one hour. Requisites: courses 1A, 1B, and 1C (or 1AH, 1BH, and 1CH), Mathematics 32B, 33A, 33B. Corequisite: course 115C. Theory of atomic structure. Interaction of radiation with matter. P/NP or letter grading.

124. Nuclear Physics. (4) Lecture, three hours; discussion, one hour. Requisites: courses 1A, 1B, and 1C (or 1AH, 1BH, and 1CH), Mathematics 32B, 33A, 33B. Corequisite: course 115C. Introduction to nuclear physics. The four basic interactions: strong, electromagnetic, weak, and gravitational. Properties of protons, neutrons, and leptons; conservation laws, symmetries and broken symmetries; the Standard Model; experimental techniques; new physics at the new accelerators. P/NP or letter grading.


128. Cosmology and Particle Astrophysics. (4) Lecture, three hours; discussion, one hour. Requisites: courses 115A, 115B, 126. Introduction to cosmology and high-energy particle astrophysics, based on latest developments of both experiment and theory. Special emphasis on unified picture of universe that emerges from particle physics, astronomy, and cosmology. Extensive discussion of unsolved problems and future prospects to help students determine their opportunities in future. Letter grading.

131. Mathematical Methods of Physics. (4) Lecture, three hours; discussion, one hour. Requisites: courses 115A, 115B, 126. Introduction to cosmology and high-energy particle astrophysics, based on latest developments of both experiment and theory. Special emphasis on unified picture of universe that emerges from particle physics, astronomy, and cosmology. Extensive discussion of unsolved problems and future prospects to help students determine their opportunities in future. Letter grading.

140A. Introduction to Solid-State Physics. (4) Lecture, three hours; discussion, one hour. Enforced requisite: course 112. Introduction to basic theoretical concepts of solid-state physics with applications. Crystal symmetry, band theory, electronic, neutron, and electromagnetic waves in a lattice; reciprocal lattice; phonons and their interactions; free electron theory of metals; energy bands. Letter grading.

144. Polymer Physics. (4) Lecture, three hours; discussion, one hour. Enforced requisites: courses 105A, 110A, and 110B. Understanding of fundamental theories of polymer physics. Use of polymer physics to study the properties and shape of materials, such as polymer fibers. Letter grading.

150. Physics of Charged-Particle and Laser Beams. (4) Lecture, three hours; discussion, one hour. Enforced requisites: courses 1A, 1B, and 1C (or 1AH, 1BH, and 1CH), 110A, and 110B. Physics of charged-particle and laser beams presented as a unified subject. Basic physics of charged-particle beams, correlating relativistic particle motion in electromagnetic fields, transverse acceleration mechanisms, linear and circular accelerators, and advanced topics. Some fundamentals of laser physics, including gain and broadening mechanisms, linear light optics, laser resonators, and advanced topics and applications. P/NP or letter grading.

180A. Nuclear Physics Laboratory. (4) Laboratory, four hours. P/NP or letter grading.

180C. Solid-State Laboratory. (4) Laboratory, four hours. P/NP or letter grading.

180D. Accelerator Physics Laboratory. (4) Laboratory, four hours. P/NP or letter grading.

180E. Plasma Physics Laboratory. (4) Laboratory, four hours. P/NP or letter grading.

180F. Elementary Particle Laboratory. (4) Laboratory, four hours. P/NP or letter grading.

180Q. Nuclear Physics Laboratory. (4) Same as Chemistry M120L. Laboratory, four hours. P/NP or letter grading.

180N. Computational Physics and Astronomy Laboratory. (4) (Formerly numbered 188N.) Lecture, one hour; laboratory, four hours. Enforced requisites: courses 105A, 105B, 110B, 112 (or Astronomy 115), 115A, 115B. Prior experience in working with computers helpful but not required. Designed to give first-hand experience in solving physics and astronomy problems on computers. Project-based course, with projects selected from core areas of classical mechanics, electrodynamics, quantum physics, statistical physics, and astronomy. Introduction to problems and to required numerical methods in lectures so students can write programs in one modern programming language of their choice (Python recommended) and carry out numerical experiments with it, with results documented in reports. P/NP or letter grading.

180Q. Quantum Optics Laboratory. (4) Lecture, two hours; laboratory, six hours. Requisite or corequisite: course 115C. Limited to junior/senior Astrophysics and Physics majors. Use of techniques of quantum optics to demonstrate concepts of quantum mechanics, including superposition, quantum measurement, hidden variable theories, and Bell's inequality. Examination and use of modern optics, including lasers, optics, fibers, polarization manipulation, and photon counting. Letter grading.

186B. Special Courses in Physics. (4) Lecture, three hours; discussion, one hour. Limited to junior/senior Astrophysics and Physics majors. Departmental-sponsored temporary courses such as pilot courses or those taught by visiting faculty. May be repeated for credit. P/NP or letter grading.

188SA. Individual Studies for USIE Facilitators. (1) Tutorial, to be arranged. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor to discuss selected USIE seminar topic, conduct preparatory research, and begin preparation of syllabus. Individual contract with faculty mentor required. May not be repeated. Letter grading.

188SB. Individual Studies for USIE Facilitators. (1) Tutorial, to be arranged. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor to discuss selected USIE seminar topic, conduct preparatory research, and begin preparation of syllabus. Individual contract with faculty mentor required. May not be repeated. Letter grading.

188SC. Individual Studies for USIE Facilitators. (1) Tutorial, to be arranged. Individual study in regularly scheduled meetings with faculty mentor while facilitating USIE 885 course. Individual contract with faculty mentor required. May not be repeated. Letter grading.

188SD. Individual Studies for USIE Facilitators. (1) Tutorial, to be arranged. Individual study in regularly scheduled meetings with faculty mentor while facilitating USIE 885 course. Individual contract with faculty mentor required. May not be repeated. Letter grading.

189. Advanced Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to undergraduate lecture course. Exploration of topics in greater depth through discussion, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. May not be repeated. Letter grading.

189CH. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to upper-division lecture course. Exploration of topics in greater depth through directed reading, readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. May not be repeated. Letter grading.

190. Research Colloquia in Physics. (2) Seminar, two hours. Enforced requisite: course 128A. Designed to bring together students under supervising tutorial research in seminar setting with one or more faculty members to discuss their own work or related work in discipline. Led by one or supervising faculty member. May be repeated for credit. P/NP grading.

191. Variable Topics Research Seminars: Physics and Astronomy. (4) Seminar, three hours. Participating research seminar on advanced topics in physics and astronomy. Reading, discussion, and culminating project. Content varies from year to year. May be repeated for credit by petition. P/NP or letter grading.

192M. Methods and Application of Collaborative Learning Theory in Physical Sciences. (2 to 4) Seminar, two hours; laboratory, six hours. Requisites: one course from 1A, 1B, 1C, 5A, 5B, 5C, or 131, course 192S (may be taken concurrently), and at least one term of prior experience in same course in which collaborative learning theory is practiced and refined under supervision of instructors. With instructor guidance, students apply pedagogical principles based on current education research focused on methods of learning and their practical application. Students practice communication skills with frequent assessment of and feedback on progress. Letter grading.

192. Introduction to Collaborative Learning Theor...
Graduate Courses

2010. Modern Physics Research Areas. (2 to 4) Tutorial, two hours. Limited to juniors/seniors. Supervised individual research or investigation under guidance of faculty mentor. Culminating paper required. May be repeated for credit. Individual contract required. P/NP or letter grading.

129. Directed Research or Senior Project in Physics. (2 to 4) Tutorial, one hour. Limited to juniors/seniors. Supervised individual research or investigation under guidance of faculty mentor. Culminating paper required. May be repeated for credit. Individual contract required. P/NP or letter grading.


230D. Quantum Field Theory. (4) Lecture, four hours. Required courses: 221A, 221B, 221C. Topics in modern quantum field theory, including free and interacting field quantization, operator and path integral formulation, renormalization theory and renormalization group methods, gauge theories, quantum electrodynamics and quantum chromodynamics, spontaneous symmetry breakdown, mass generation, and anomalies. S/U or letter grading.

231A. Methods of Mathematical Physics. (4) Lecture, three hours. S/U or letter grading.

231B. Advanced Mathematical Physics. (4) Lecture, three hours. S/U or letter grading.


and discussion by staff, postdoctoral fellows, and graduate students. May be repeated for credit. S/U grading.

292. Research Tutorial: Spectroscopy, Low-Temperature, and Solid-State Physics. (2 or 4) Required of each graduate student doing research in these fields, ordinarily during second or third year. Seminar and discussion by staff and students on problems of current research interest in spectroscopy, low-temperature, and solid-state physics. May be repeated for credit. S/U grading.

293. Research Tutorial: Current Topics in Physics. (2) Lecture, one hour. Seminar and discussion by staff and students on current topics in physics, both experimental and theoretical (topics not limited to one specialty of faculty member teaching course). Strongly recommended for graduate students in physics. May be repeated for credit. S/U grading.

294. Research Tutorial: Accelerator Physics. (2 or 4) Lecture, one hour; discussion, two hours. Required of each graduate student doing research in this field. Seminar and discussion by faculty, postdoctoral fellows, and graduate students on topics of current interest in accelerator physics. May be repeated for credit. S/U grading.

295. Research Tutorial: Soft Matter/Biological Physics. (2) Tutorial, one hour. Required of each graduate student doing research in this field. One-hour presentation by staff and students on their ongoing research or on agreed on topic. Students answer critical questions and participate in critical examination of research. May be repeated for credit. S/U grading.

296. Research Topics in Physics. (2) Advanced study and analysis of current topics in physics. Discussion of current research and literature in research specialty of faculty member teaching course. May be repeated for credit. S/U grading.

M370A. Integrated Science Instruction Methods. (4) (Same as Chemistry M370A and Earth, Planetary, and Space Sciences M370A.) Lecture, two hours; discussion, one hour; laboratory, one hour. Preparation: one introductory lower-division year (including laboratory) each of chemistry, life sciences, and physics and at least two Earth science courses, preferably one with field experience. Classroom management, lesson design, assessment, history of science-education, S/U or letter grading.

M370B. Integrated Science Instruction Methods. (4) (Same as Chemistry M370B and Earth, Planetary, and Space Sciences M370B.) Lecture, two hours; discussion, one hour; laboratory, one hour. Preparation: course M370A or Chemistry M370A or Earth, Planetary, and Space Sciences M370A. Application of learning theory to science instruction and classroom management, including use of technology, collaborative learning, laboratory safety, ethical issues, field experiences, and professional development. S/U or letter grading.

375. Teaching Apprentice Practicum. (1 to 4) Seminar, to be arranged. Preparation: apprentice personnel employment as teaching assistant, associate, or fellow. Teaching apprenticeship under active guidance and supervision of regular faculty member responsible for curriculum and instruction at UCLA. May be repeated for credit. S/U grading.

490. Scientific Writing. (2) Seminar, 90 minutes. Practical guidelines for improved scientific writing and oral presentation. Writing of several short papers with subsequent analysis in class. Short blackboard and/or viewgraph presentations. Topics vary. S/U grading.

495. Teaching College Physics. (2) Seminar, two hours; multi-day intensive training at beginning of Fall Quarters, ordinarily during second or third years. Special course for teaching assistants designed as an introduction to teaching college physics, with emphasis on applying discussed techniques in classroom. Ideas and skills learned are evaluated in the sections of each teaching assistant. May be repeated for credit. S/U grading.

596. Directed Individual Studies. (2 to 12) Tutorial, to be arranged. May be repeated for credit. S/U grading.

597. Preparation for Master's Comprehensive Examination or PhD Qualifying Examinations. (4) Tutorial, to be arranged. May be repeated twice for credit. S/U grading.

598. Master's Thesis Research and Writing. (4) Tutorial, to be arranged. May be repeated twice for credit. S/U or letter grading.

599. PhD Research and Writing. (4 to 12) Tutorial, to be arranged. May be repeated for maximum of 18 units. S/U grading.

**Scope and Objectives**

The Physics and Biology in Medicine MS/PhD Program is a CAMPEP-accredited interdepartmental graduate program supported by the departments of Molecular and Medical Pharmacology, Radiology Oncology, and Radiological Sciences. It offers training in four specialties: medical imaging, molecular and cellular oncology, molecular imaging, and therapeutic medical physics. Specialized facilities for training and research are available in the departmental laboratories, as well as in the Crump Institute for Molecular Imaging, Center for Medical Countermeasures against Radiation, and Center for Computer Vision and Imaging Biomarkers, among others. Highly specialized equipment includes state-of-the-art medical imaging modalities such as MRI, CT angiography, and PET/CT in both clinical and preclinical settings, as well as advanced radiotherapy treatment and planning facilities. The program prepares students for careers as independent researchers or professional medical physicists, and graduates pursue academic, industrial, governmental, and clinical careers, regardless of which specialty they pursue.

Graduates in physics and biology in medicine can expect to engage in any combination of research, teaching, clinical service, and consultation. Biomedical physicists are usually employed in hospitals frequently associated with a medical school, where they are members of the academic staff. They are also in demand in high-technology private industry engaged in research and development of diagnostic equipment. In government agencies, biomedical physicists are involved in the formulation and en-
Graduate Course

The Physics and Biology in Medicine Program offers Master of Science (MS) and Doctor of Philosophy (PhD) degrees in Physics and Biology in Medicine.

Physics and Biology in Medicine

Lower-Division Courses

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

99. Student Research Program. (1 to 2) Tutorial (supervised research or other scholarly work), three hours per week per unit. Entry-level research for lower-division students under guidance of faculty mentor. Students must be in good academic standing and enrolled in minimum of 12 units (excluding this course). Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP grading.

Upper-Division Course

196. Directed Research in Biomedical Physics. (2 to 4) Tutorial, two hours. Limited to juniors/seniors. Supervised individual research or investigation under guidance of faculty mentor. Culminating paper required. May be repeated for credit. Individual contract required. P/NP or letter grading.

Graduate Courses

200A. Physics and Chemistry of Nuclear Medicine. (4) Lecture; three hours; discussion; one hour. Nuclear structure, statistics of radioactive decay, nuclear radiations and their interaction with matter, nuclear decay processes, nuclear reactions, and compartment models. Physical and chemical properties of radioactive preparations used in nuclear medicine. Basic principles of nuclear medicine imaging, SPECT, and PET. S/U or letter grading.

200B. Nuclear Medicine Instrumentation. (4) Lecture, one hour; laboratory, three hours. Requisites: course 200A. Introduction to nuclear medicine instrumentation, including well ionization chambers, probe and well scintillation detectors, scintillation cameras, and single photon and positron emission computed tomography, S/U or letter grading.

201. Medical Radiation Accelerator Design. (4) Lecture, three hours. Requisites: course 216. Overview of physics involved in design of current particle accelerators (electron, proton, heavy particle) and analysis of characteristics of current accelerators and facility design. S/U or letter grading.


204. Introductory Radiation Biology. (4) Lecture, four hours. Effect of ionizing radiation on chemical and biological systems. S/U or letter grading.

205. Physics of Diagnostic Radiology. (4) Lecture, three hours; laboratory, one hour. Basic interactions between X rays and matter, X-ray system components, physics principles of medical radiography, radiographic image quality, fluoroscopy, image intensifiers, special procedures, X-ray protection. Laboratory experiments illustrate basic theory, S/U or letter grading.

206. Advanced Instrumentation. (4) Lecture, three hours; discussion, one hour. Requisite: course 205. Introduction to recent developments in diagnostic imaging systems, with topics centered on instrumentation including digital subtraction angiography (DSA) methods of producing three-dimensional images. S/U or letter grading.


208A. Medical Physics Laboratory: Medical Imaging. (4) Discussion, two hours; laboratory, four hours. Requisite: course 205. Hands-on experience performing acceptance testing and quality control checks of imaging equipment such as fluoroscopy, digital subtraction angiography, mammography, ultrasound, magnetic resonance imaging, computed tomography, and computed radiography, S/U or letter grading.

208B. Medical Physics Laboratory: Radiation Therapy. (4) Discussion, two hours; laboratory, four hours. Requisite: course 203. Hands-on experience calibrating treatment planning and radiation therapy equipment. S/U or letter grading.


M210. Computer Vision in Medical Imaging. (4) Lecture, three hours; discussion, one hour. Requisites: courses 203, 205. Advanced techniques in rapid imaging, quantitative imaging, and computer-aided diagnosis, as well as application of pattern classification techniques (neural networks and discriminant analysis). Examination of problems from several imaging modalities (CT, MR, CR, and mammography). S/U or letter grading.

215. Breast Imaging Physics and Instrumentation. (4) Lecture, three hours; laboratory, two hours. Requisite: course 216. Advanced imaging physics and computer-based image analysis techniques applied to medical images. Discussion of approaches to computer-aided diagnosis and image quantization, as well as application of pattern classification techniques (neural networks and discriminant analysis). Examination of problems from several imaging modalities (CT, MR, CR, and mammography). S/U or letter grading.

217. Statistics and Data Analysis in Biomedical Physics. (2) Lecture, two hours; laboratory, one hour. Requisites: Mathematics 31A, 31B, 32A, 32B, 33A, 33B. Introduction to fundamental statistical concepts, data analysis, and experimental design within biomedical physics research. Standard statistical packages and various statistical computing algorithms on relevant data sets within radiological sciences. Letter grading.

218. Radiologic Functional Anatomy. (4) Lecture, three hours; discussion, one hour. Introduction to human anatomy, cell biology, and physiology as visualized through tomography, molecular imaging, radiography, CT, MRI, ultrasonography, PET, and SPECT. Letter grading.

M219. Principles and Applications of Magnetic Resonance Imaging. (4) (Same as Bioengineering M219.) Lecture, three hours; discussion, one hour. Basic principles of magnetic resonance (MR), physics, and image formation. Emphasis on hardware, Bioequation derivation, analytic and contrast mechanisms, spin and gradient echo sequences, Fourier transform imaging methods, structure of pulse sequences, and various scanning parameters. Introduction to advanced techniques in rapid imaging, quantitative imaging, and spectroscopy. Letter grading.

220A-220D. Laboratory Rotations in Biomedical Physics. (2–2) Laboratory, two hours. Laboratory projects to provide students with introduction to field. One or two written and one oral presentation required. S/U grading.

220A. Biophysics; 220B. Medical Imaging; 220C. Therapeutic Medical Physics; 220D. Radiation Biology and Experimental Radiation Therapy.

221. Applied Health Physics. (4) Lecture, three hours; laboratory, two hours. Requisite: course 216. S/U or letter grading.
225. Contrast Mechanisms and Quantification in Magnetic Resonance Imaging. (4) Lecture, four hours. Requisites: course 219. Introduction to magnetic resonance contrast mechanisms and quantification techniques in magnetic resonance imaging. Topics include exogenous and endogenous contrast mechanisms, diffusion and perfusion imaging, advanced diffusion and q-space analysis, chemical exchange and magnetization transfer imaging, and relaxometry. Letter grading.

M229. Advanced Topics in Magnetic Resonance Imaging. (4) (Formerly numbered 229.) (Same as Bioengineering M229.) Lecture, four hours. Requisite: course M219. Designed for students interested in pursuing research related to development or translation of new magnetic resonance imaging (MRI) technique. Basic tools and understanding of recent MRI developments that have had high impact on field, involve novel pulse sequence design or image reconstructions, and enable imaging of anatomy or function in way that was previously impossible with modality. Topics include in-depth sequence simulation, RF pulse design, rapid image acquisition, parallel imaging, compressed sensing, image reconstruction and processing, and compensation for chemical-shift imaging and understanding and standing/avoiding artifacts. Programming exercises in MATLAB to provide hands-on experience. Letter grading.

M230. Computed Tomography: Theory and Applications. (4) (Same as Biometrics M230.) Lecture, four hours. Computed tomography is a three-dimensional imaging technique being widely used in radiology and becoming a research area in medicine. Basic principles of computed tomography (CT), various reconstruction algorithms, special characteristics of CT, physics in CT, and various biomedical applications. S/U or letter grading.

231. Advanced Treatment Planning in Radiation Therapy. (3) Lecture, four hours. Enforced requisites: courses 203, 216. Designed to provide theoretical and practical understanding of treatment planning techniques utilized in radiation therapy. Topics include clinical treatment planning workflow, general planning principles and strategies, and specific considerations for various treatment delivery modalities and advanced treatment techniques. Detailed discussion on dose calculation algorithms and inverse planning and optimization. Clinical treatment planning demonstration using commercial treatment planning systems used to provide practical understanding of clinical applications and implementation. S/U or letter grading.

M248. Introduction to Biological Imaging. (4) (Same as Bioengineering M248 and Pharmacology M248.) Lecture, three hours; laboratory, one hour; outside study, seven hours. Exploration of role of biological imaging in modern biology and medicine, including imaging physics, instrumentation, image processing, and applications of imaging for range of modalities. Practical experience provided through series of imaging laboratories. Letter grading.


268. Radiopharmaceutical Chemistry. (4) Lecture, two hours; discussion, two hours. Introduction to advanced concepts in chemistry of radiopharmaceuticals and technologies for radiopharmaceutical production and analysis. Areas of focus are (1) radiopharmaceuticals, (2) radiochemistry with fluorine-18 and other isotopes, (2) techniques for synthesis automation and optimization, (3) analytical instrumentation and tools in radiochemistry, and (4) PET tracer design and development. Introduction to multistep process of target identification, tracer design, radiosynthesis development, in vitro and in vivo tracer evaluation, radiochemistry automation for routine production, and preparation of clinical grade doses (as prerequisite for clinical translation of novel molecular imaging tracers). Lectures covering fundamentals complemented with practical sessions that provide hands-on training with technologies and methods used in routine synthesis, synthesis optimization, analysis and quality control testing, and in vitro and in vivo evaluation of PET probes. S/U or letter grading.

269. Seminar: Medical Imaging. (1) Seminar, one hour. Continuous registration required of students in medical imaging specialty. Topics of current interest in medical imaging, with lecturers from department, other universities, and private industry. S/U or letter grading.

M285. Functional Neuroimaging: Techniques and Applications. (3) (Same as Bioengineering M284, Neuroscience M285, Psychiatry M285, and Psychology M278.) Lecture, three hours. In-depth examination of activation imaging, including MRI and electrophysiological methods, data acquisition and analysis, experimental design, and results obtained thus far in human systems. Focus on understanding techniques that are currently usable in understanding paradigms, and how to interpret results. Laboratory visits and design and implementation of functional MRI experiment. S/U or letter grading.

286. Image Registration Techniques. (4) Lecture, four hours. Preparation provides mathematical background. Examination of state-of-art image registration methods that exist today. Mathematical descriptions of each different class of registration methods and two-dimensional/three-dimensional/four-dimensional implementation details. Programming of registration methods in MATLAB/C/C++/CUDA/JAVA interfaces so students learn all registration methods currently investigated. Letter grading.

M424. Functional Magnetic Resonance Imaging Journal Club. (2) (Same as Psychiatry M424.) Discussion, 90 minutes. Limited to 10 students. Current topics in functional neuroimaging, with emphasis on novel applications, analysis, and acquisition methods. Presentation and critique of student papers. Overall emphasis on magnetic resonance imaging. Example areas include tractography through diffusion tensor imaging, event-related experimental design, parallel receiver MR imaging, integrated electrophysiological and image acquisition. S/U grading.

495. Special Studies in Biomedical Physics. (4) Seminar, tutorial, four hours. Teaching assistance in graduate laboratory courses under supervision of faculty member. S/U grading.

596. Research in Biomedical Physics, (4 to 12) Tutorial, to be arranged. Directed individual study or research. Only one 596 course may be applied toward MS degree requirements. May be repeated for credit. S/U or letter grading.

698. Preparation for PhD Qualifying Examinations. (4) Tutorial, to be arranged. May not be applied toward MS degree requirements. May not be repeated. S/U grading.


PHYSIOLOGY

David Geffen School of Medicine
33-231 Center for Health Sciences
Box 951751
Los Angeles, CA 90095-1751

Physiology

Scope and Objectives

Physiology is the science of the functional activities of the human body. This covers a wide range, including observations on humans and experiments on animals and model systems in order to understand principles. Physiology is the science most directly relevant to human medicine in all its specialties and to understanding all environmental factors affecting human life. It is also a pure science of great challenge because of the complexity of its problems and its extensive interaction with mathematical, physical, biochemical, and engineering sciences, as well as with other branches of biology.

Within the prescribed curriculum, students may specialize in cellular and molecular physiology, theoretical and mathematical physiology, and organ systems and integrative phenomena, including neuroscience and behavioral physiology.

The Department of Physiology offers post-doctoral training in research and welcomes students interested in articulated MD/PhD programs.

Applicants interested in pursuing graduate study may apply directly to the interdepartmental Molecular, Cellular, and Integrative Physiology PhD program.

Physiology

Lower-Division courses

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

99. Student Research Program. (1 to 2) Tutorial (supervised research or other scholarly work), three hours per week per unit. Entry-level research for lower-divi-
sion students under guidance of faculty mentor. Students must be in good academic standing and enrolled in minimum of 12 units (excluding this course). Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP grading.

Upper-Division Courses

188SA. Individual Studies for USIE Facilitators. (1) Tutorial, to be arranged. Enrolled corequisite: Honors Collegium 101E. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor to discuss selected USIE seminar topic, conduct preparatory research, and begin preparation of syllabus. Individual contract with faculty mentor required. May not be repeated. Letter grading.

188SB. Individual Studies for USIE Facilitators. (1) Tutorial, to be arranged. Enrolled requisite: course 188SA. Enrolled corequisite: Honors Collegium 101E. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor to finalize course syllabus. Individual contract with faculty mentor required. May not be repeated. Letter grading.

188SC. Individual Studies for USIE Facilitators. (2) Tutorial, to be arranged. Enrolled requisite: course 188SB. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor while facilitating USIE 88S course. Individual contract with faculty mentor required. May not be repeated. Letter grading.

199. Directed Research in Physiology. (2 to 4) Tutorial, to be arranged. Limited to juniors/seniors. Supervised individual research or investigation under guidance of faculty mentor. Culminating paper or project required. May be repeated for credit. Individual contract required. P/NP or letter grading.

Graduate Courses

M210. Molecular and Cellular Mechanisms of Neuronal Integration. (5) (Same as Neuroscience M230 and Physiological Science M210.) Lecture, four hours; discussion, one hour. Requisite: Neuroscience M202. Introduction to mechanisms of synaptic processing. Selected problems of current interest, including regulation and modulation of transmitter release, molecular biology and physiology of receptors, cellular basis of integration in sensory perception and learning, neural nets and oscillators, and molecular events in development and sexual differentiation. Letter grading.

220. Methods in Cell Physiology. (6) Linear circuit analysis, including admittance, transfer admittance, transfer function, and filters using transform methods. Application of these concepts to electronic analog circuits in lectures and laboratory, with emphasis on operational amplifiers. Applications to electrophysiology include microelectrode amplifiers, voltage clamp and patch clamp techniques, with circuit analysis and noise considerations. Digital electronics cover logic gates, sequential circuits, and A/D and D/A conversion, with introduction to sampling theory.

221. Cell Physiology: Excitability. (6) Requisite: course 220. In-depth coverage of general properties of excitable cells, linear cable properties, nonlinear conductance changes, and generation and propagation of the nerve impulse. Voltage gating and gating currents, as well as relationship between macroscopic conductance and single channel properties discussed in analytical detail using original publications.

296. Current Topics in Physiology. (2 to 4) Lecture, one hour; discussion, one hour. Designed for graduate students. Students read primary literature in a specified area and conduct or participate in discussions on these papers. May be repeated for credit. S/U or letter grading.

596. Directed Individual Study or Research. (2 to 12) Tutorial, to be arranged. S/U grading.

597. Preparation for MS Comprehensive Examination or PhD Qualifying Examinations. (2 to 12) Tutorial, to be arranged. S/U grading.


Political Science

College of Letters and Science

4289 Bunche Hall
Box 951472
Los Angeles, CA 90095-1472

Political Science
310-825-4331

Barbara Geddes, PhD, Chair

Professors

Richard D. Anderson, Jr., PhD
Matthew A. Barreto, PhD
Kathleen Bawn, PhD
Michael S.Y. Chwe, PhD
Joshua F. Dienstag, PhD
Barbara Geddes, PhD
Deborah W. Larson, PhD
Jeffrey B. Lewis, PhD
Michael F. Lofchie, PhD
Susanne Lohmann, PhD
Kirstie M. McClure, PhD
Barr O’Neill, PhD
Karen J. Orren, PhD
Anthony R. Pagden, PhD
Davide Panagia, PhD
Efrén O. Pérez, PhD

Graduate School in Education

Graeme D. Blair, PhD
Michael L. Ross, PhD
Thomas Schwartz, PhD
Gary M. Segura, PhD
Giulia Sissa, PhD
Steven L. Spiegel, PhD
Arthur A. Stein, PhD
James W. Tong, PhD
Daniel S. Treisman, PhD

Political Science / 669

Lynn Vareck Lewis, PhD (Marvin Hoffenben Professor of American Politics and Public Policy)

Shannon O. Wilkinson, PhD

John R. Zaller, PhD

Associate Professors

Lorrie A. Frasure-Yokley, PhD
Scott C. James, PhD
Leslie N. Johns, PhD
Natalie Masuoka, PhD
Margaret E. Petersen, PhD
Michael F. Thies, PhD

Associate Professors

Graeme D. Blair, PhD
Eric K. Hartman, PhD
Chad J. Hazlett, PhD

Prefessor

Christopher N. Tausanovitch, PhD

Adjunct Assistant Professor

Scott C. James, PhD

Political Science BA

Learning Outcomes

The Political Science major has the following learning outcomes:

• Critical thinking about basic political processes, institutions, and concepts as they operate in different national and cultural contexts
• Impartial evaluation of arguments
• Application of mathematical and logical reasoning to political processes
• Use and evaluation of statistical and other types of evidence in arguments
• Recognition of limits of quantitative and non-quantitative analysis
• Knowledge of diverse theories of politics by engaging critically with texts, media, and contexts
• Employment of cultural, hermeneutical, normative, and historical approaches
• Location, evaluation, and use of information and scholarship needed to place particular political events in broader historical, cross-national, and theoretical contexts
• Demonstrated familiarity with various approaches to the study of politics, and their application to specific questions, puzzles, and debates
• Written and oral arguments using appropriate evidence, with sensitivity to opposing perspectives, about significant political processes, events, and concepts

Premajor

All students intending to major in Political Science must enroll as Political Science premajors. After
Preparation for the Major
Required: Four lower-division courses from Political Science 10, 20, 30, 40, 50. Students must also take Political Science 6 or 6R. Statistics 10 or 12 may be substituted for course 6 or 6R. Students must complete all premajor courses with a 2.0 grade-point average by the time they attain 135 units. Admission to the major is granted only after successful completion of all lower-division requirements.

Transfer Students
Transfer applicants to the Political Science major with 90 or more units must complete the following introductory courses prior to admission to UCLA: one statistics course and four courses from political theory, world politics, game theory, American politics, or comparative politics.

Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

The Major
Required: Ten upper-division courses (40 units) selected from Political Science M105 through 199, each taken for a letter grade. Students are required to maintain a 2.0 overall grade-point average in all upper-division political science courses.

Upper-division political science courses are organized into six fields: (1) political theory, (II) international relations, (III) American politics, (IV) comparative politics, (V) methods and models, and (VI) race and ethnic politics.

In fulfilling the requirement of 10 upper-division political science courses, students must satisfy the following:

1. A concentration in one field consisting of at least three upper-division courses in that field
2. A distribution requirement of at least one upper-division course in each of three different fields outside the field of concentration; multifield courses from the concentration field may not satisfy a distribution field
3. Four additional political science courses

Courses 191H, 195CE, 198, and 199 may not be applied toward either the concentration or distribution requirement.

Honors Program
The department honors program is open to seniors and to students who (1) have completed five upper-division political science courses (two of which are in one field), (2) have a 3.5 grade-point average in upper-division political science courses, and (3) are eligible for College of Letters and Science honors. Students should have substantial experience in writing research papers before they enter the honors program or course 191H.

Students wishing to qualify for graduation with departmental honors must complete courses 191H and 198, in which a senior thesis is written. Successful completion of the honors program is indicated on the transcript and diploma.

Graduate Study
Officials, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Division website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Graduate Degrees
The Department of Political Science offers Master of Arts (MA), Candidate in Philosophy (CPhil), and Doctor of Philosophy (PhD) degrees in Political Science.

Political Science

Lower-Division Courses

6. Introduction to Data Analysis. (5) Lecture, three or four hours; discussion, one hour (when scheduled). Not open for credit to students with credit for course 50. Data collection and analysis of political data, with emphasis on application of statistical reasoning to study of relationships among political variables. Use of computer as aid in analyzing data from various fields of political science, among them comparative politics, international relations, American politics, and public administration. P/NP or letter grading.

6R. Introduction to Data Analysis—Research Version. (5) Lecture, three or four hours; discussion, one hour (when scheduled). Enforced corequisite: course 50R. Not open for credit to students with credit for course 6. Introduction to collection and analysis of political data, with emphasis on application of statistical reasoning to study of relationships among political variables. Use of computer as aid in analyzing data from comparative politics. P/NP or letter grading.

10. Introduction to Political Theory. (5) Lecture, three hours; discussion, one hour. Exposition and analysis of selected political theorists and concepts from Plato to the present. P/NP or letter grading.

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of current social and political thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

20. World Politics. (5) Lecture, three hours; discussion, one hour. Required of all students concentrating in Field II. Introduction to problems of world politics. P/ NP or letter grading.

30. Politics and Strategy. (5) Lecture, three or four hours; discussion, one hour (when scheduled). Introduction to study of strategic interaction in political applications. Use of game theory and other formal modeling strategies to understand politics. P/NP or letter grading.

40. Introduction to American Politics. (5) Lecture, three hours; discussion, one hour. Basic institutions and processes of democratic politics. Treatment of themes such as constitutionalism, representation, participation, and leadership coupled with particular emphasis on the American case. P/NP or letter grading.

50. Introduction to Comparative Politics. (5) Lecture, three hours; discussion, one hour. Not open for credit to students with credit for course 50R. Comparative study of political systems and processes in selected countries. P/NP or letter grading.

50R. Introduction to Comparative Politics—Research Version. (5) Lecture, three or four hours; discussion, one hour (when scheduled). Enforced corequisite: course 6R. Not open for credit to students with credit for course 50. Comparative study of constitutio

Ethics and Governance. (5) Lecture, three or four hours; discussion, one hour (when scheduled). To study questions of public policy in order to understand and promote the development of social change and development and to understand the impact of political philosophy. Required of all students concentrating in Field II. Development of self- and other-awareness of emergent properties of disagreement to appreciate how different kinds of social organization promote or undermine social cognition and collective action. Such understanding needs to develop bottom-up through experiential and interactive learning, active and analytical learning, systems thinking, and real-world application. P/NP or letter grading.

Field I: Political Theory

M111A. Ancient and Medieval Political Theory. (4) (Same as Classics M121.) Lecture, three or four hours; discussion, one hour (when scheduled). Preparation: any lower-division political science course. Enforced requisite: Economics 11. Designed for juniors/seniors. Analysis of methods and consequences of arriving at collective decisions through political mechanisms. Topics include freedom, problem, voting and majority choice, demand revelation, and political bargaining. P/ NP or letter grading.

M111B. Early Modern Political Theory. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Exposition and critical analysis of major thinkers such as Plato, Aristotle, Thucydides, St. Augustine, Aquinas, Machiavelli, and More and questions such as forms of government, citizenship, justice, happiness, rhetoric, religion, emotion. P/ NP or letter grading.

M111C. Later Modern Political Theory. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Exposition and critical analysis of major thinkers such as Bentham, De Tocqueville, Hegel, Mill, Marx, Nietzsche, Ar-
enlightenment, and Foucault and questions such as alienation, power, participation, and difference. P/NP or letter grading.

112A. Democratic Theory. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Critical analysis of selected major philosophers and arguments in contemporary democratic theory.

M112B. Invention of Democracy. (5) (Same as Classics M125.) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Democracy was invented in ancient Greece as a form of government. It was based on the premise that all citizens are equal and have the right to participate in the decision-making process. P/NP or letter grading.

113B. Politics, Theory, and Film. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Recommended requisite: course 10. Designed for juniors/seniors. Intense and individualized examination of politically significant films with respect to central issues in political theory. Sections offered on regular basis, with topics announced in preceding term. May be repeated for credit with topic change. P/NP or letter grading.

114A. American Political Thought I, 1620 to 1865. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Examination of the development of American political thinkers from Puritan period to Civil War. P/NP or letter grading.

114B. American Political Thought II, 1865 to Present. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Study and interpretation of political theories that have shaped American political thought. P/NP or letter grading.

M115C. Citizenship and Public Service. (4) (Same as Community Engagement and Social Change M115.) Lecture, three or four hours; discussion, one hour (when scheduled). Recommended requisite: course 10. Designed for juniors/seniors. Study and interpretation of theorists who have focused their analyses on social and political problems of the 20th century. P/NP or letter grading.


119. Special Studies in Political Theory. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Preparation: one course in Field I. Recommended requisite: course 10. Designed for juniors/seniors. Intensive examination of one or more special problems appropriate to political theory. Sections offered on regular basis, with topics announced in preceding term. May be repeated for credit with topic change. P/NP or letter grading.

M119A. Modern Receptions of Ancient Political Thought. (4) (Same as Classics M124.) Lecture, three hours. Designed for juniors/seniors. Study of how Western culture has conceived and reinterpreted political thought of ancient Greeks and Romans. Topics include examination of influential case(s) of modern reception of classical antiquity. P/NP or letter grading.

Field II: International Relations

120A. Foreign Relations of U.S. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Study of American foreign policy with respect to individual cases. P/NP or letter grading.

120B. World Politics and U.S. Foreign Policy after September 11. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Video lectures by leading scholars as well as live lectures and discussion on complex problems such as terrorism, nuclear proliferation, and Arab-Israeli conflict. P/NP or letter grading.

121A. Studies in Formulation of American Foreign Policy. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Study of American foreign policy with respect to individual cases. P/NP or letter grading.

122A. World Order. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Recommended requisite: course 20. Designed for juniors/seniors. Study of problems of international system seen as community capable of cooperation and development. P/NP or letter grading.

M122B. Global Environment and World Politics. (4) (Same as Environment M161.) Lecture, three or four hours; discussion, one hour (when scheduled). Recommended requisite: course 20. Politics and policy of major global environmental issues such as climate change, integrating law, policy, and political science perspectives. P/NP or letter grading.

123A. International Law. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Requisite: course 20. Designed for juniors/seniors. Study of nature and place of international law in conduct of international relations. P/NP or letter grading.

123B. International Organizations. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Overview of both theory and functioning of international organizations in promoting international cooperation. Required readings include both statistical and formal models. P/NP or letter grading.

124A. International Political Economy. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Recommended requisite: course 10. Designed for juniors/seniors. Study of political aspects of international economic issues. P/NP or letter grading.

125. Arms Control and International Security. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Arms control in context of international security in nuclear age. P/NP or letter grading.

126. Peace and War. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Study of ways to achieve and maintain relevance for world that many describe as posthumanist? What form of civic culture is most appropriate for North American citizens in 21st century? P/NP or letter grading.

116A. Marxism. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Critical analysis of origins, nature, and development of Marxist political theory. P/NP or letter grading.

116B. Continental Political Thought. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Recommended requisite: course 10. Designed for juniors/seniors. Study of important text in continental political theory, including relationship between politics and reason, skepticism, and political freedom. P/NP or letter grading.

117. Jurisprudence. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Development of law and legal systems; consideration of fundamental legal concepts; contributions and influence of modern schools of legal philosophy in relation to law and government. P/NP or letter grading.

127A. Atlantic Area in World Politics: Western Europe. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Problems of international system seen as community capable of cooperation and development. P/NP or letter grading.


128B. International Relations of Post-Communist Russia. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Survey of current and historical analysis. Prior exposure to both useful but not required. P/NP or letter grading.

129. Diplomacy and War. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Requisite: course 20 or 137A. Designed for juniors/seniors. Analysis of role of diplomacy in great power politics, history of diplomatic institutions, advantages of public and private diplomacy, bilateral and multilateral settings, and theory and practice of deterrence and coercion. P/NP or letter grading.

132A-M132B. International Relations of Middle East. (4-4) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Survey of relations between the U.S. and former Soviet Union from Revolutions of 1917 to collapse of the U.S.S.R. in 1991.

134. Foreign Policy Decision Making and Tools of Statecraft. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Recommended requisite: course 20. Designed for juniors/seniors. Study of the processes involved in foreign policy decision making. P/NP or letter grading.

132A. International Law. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Requisite: course 20. Designed for juniors/seniors. Study of nature and place of international law in conduct of international relations. P/NP or letter grading.

132B. International Organizations. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Overview of both theory and functioning of international organizations in promoting international cooperation. Required readings include both statistical and formal models. P/NP or letter grading.

134. Foreign Policy Decision Making and Tools of Statecraft. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Recommended requisite: course 20. Designed for juniors/seniors. Study of the processes involved in foreign policy decision making. P/NP or letter grading.
141E. Elections, Media, and Strategy. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Requisite: course 30. Designed for juniors/seniors. Analysis of elections and media, including game-theoretic analysis, Downsian spatial model of elections, voter versus characteristics in elections, campaign finance, endogeneity problems in social sciences, liberal bias in media, industrial organization of news industry, and effects of media on voter decisions. May be applied toward Field III or V. P/NP or letter grading.

142A. Political Parties and Interest Groups. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Requisites: courses 6, 40, 141B. Designed for juniors/seniors. Organization and activities of political parties in the U.S. Attention to historical development of the parties, nature of party change, campaign functions and electoral role of the parties, membership problems and party activists, political finance, and policy formulation practices. P/NP or letter grading.

142D. Understanding Public Issue Life Cycle. (4) (Same as Political Science Mi27.) Lecture, three or four hours; discussion, one hour (when scheduled). Recommended preparation: courses 10, 40, and one course from Economics 1, 2, 5, 11, or 101. Examination of how public issue life cycle is shaped by (1) economic and political actors—business, news media, mass, political organizations, Congress, the president, regulatory agencies, and courts and (2) ideology, cognitive biases, and ethical reasoning. P/NP or letter grading.


143B. Metropolitan Governance. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. An examination of how political, social, economic, and cultural factors influence metropolitan governance in both U.S. central cities and suburban areas. Study of some major issues in metropolitan governance through classic and contemporary readings on political power, political economy of cities, and racial/economic segregation, as well as political incorporation and racial/ethnic coalitions. P/NP or letter grading.

143C. Politics of American Suburbanization. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Examination of political and socioeconomic evolution of American suburbs, particularly in post-WWII era. Dominant themes focus primarily on historical patterns and implications of U.S. racial/ethnic inclusion and exclusion; classic and contemporary theories of metropolitan governance; and civic/political implications of American suburbanization. Select topics and case studies include: housing, schools, and taxes; immigrant and ethnic minority suburbanization; suburban sprawl and uneven growth; suburban decline; and regionalism. P/NP or letter grading.

145A-145E. Public Law and Judicial Process. (4 each) Lecture, three or four hours; discussion, one hour (when scheduled). Requisite: course 40. Designed for juniors/seniors. Study of case formation and development of constitutional law with an emphasis on judicial processes and the political, social, and economic factors that affect the constitutional decision-making process. P/NP or letter grading.


145C. Constitutional Law—Civil Liberties. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Requisite: course 40. Designed for juniors/seniors. Protection of civil and political rights and liberties under constitution. P/NP or letter grading.

145D. Judicial Oversight of Bureaucracy. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Requisite: course 40. Designed for juniors/seniors. Legal controls of administration action. Substantive and procedural limits on administrative discretion imposed by legislation, executive and judicial agencies, and sources of legal powers of administrative bodies within these limits. P/NP or letter grading.

145E. Constitutional Law—Rights of Accused. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Requisite: course 40. Designed for juniors/seniors. Constitutional rights of persons suspected of crime. Examination of how protections have changed through history. P/NP or letter grading.

146A-146D. Organization Theory, Public Policy, and Administration. (4-4-4-4) Lecture, three or four hours; discussion, one hour (when scheduled). Requisite: course 40. Designed for juniors/seniors. P/NP or letter grading.


146D. Theories of Organization and Decision Making. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Requisite: course 40. Designed for juniors/seniors. Examination of organizational frameworks for studying public and private bureaucracies, with emphasis on ideologies, values, behavioral patterns, and concepts of organization. P/NP or letter grading.

146E. National Policy Development and Implementation. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Requisite: course 40. Designed for juniors/seniors. Investigation of complex process of policy development and implementation in U.S., including: problem framing; political networks; sources of policy change; key actors and interest groups; decision-making and implementation; political and bureaucratic constraints; sources of policy change; and public policy evaluation. P/NP or letter grading.

147A. Overview. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Requisite: course 40. Designed for juniors/seniors. Introduction to historical development of American politics and ideas and institutions that drive durable change over time. Examination of theories, concepts, and analytical tools at center of developmental inquiry. P/NP or letter grading.

147B. Period Inquiry. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Requisite: course 40. Designed for juniors/seniors. Examination of one period in American political history. Critical features fostering stability and change. Discussion of contributions to structure and content of contemporary American politics. Possible periods: Founding, Reconstruction, Progressive Era, New Deal, and Cold War. Consult Schedule of Classes for topics to be offered in specific term. P/NP or letter grading.

147C. Institutional Development. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Requisite: course 40. Designed for juniors/seniors. Examination of one American political institution and its development over time, or interaction of American Politics with some aspect of society. Assesement of broader political environment of politics, isolating points of contact, conflict, and pressure for change. Possible topics include party development,
15A. Government and Politics of Post-Communist States: Russia. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Intensive study of institutions and political development in Russia, with special attention to legacy of Soviet Union, Russian political economy, post-Soviet political institutions, and ideology. P/NP or letter grading.

156A. Fascism and Right-Wing Extremism: Historical and Present Day. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Historical rise of Fascism in Germany, Italy, Japan, and Eastern Europe; its social support and political mobilization; Focus on power of nationalism, Nazism, and economic policy (Tusoo, Wages of Destruction). Do today’s xenophobic movements in Europe and U.S. resemble earlier Fascism in ideology and social base? P/NP or letter grading.


156C. Political Economy of Development. (4) (Same as International Development Studies M120.) Lecture, three or four hours; discussion, one hour (when scheduled). Requisite: course 50. Political economy approach to puzzle of why some countries are rich and others are poor and why, among other factors, some have been able to achieve rapid rates of economic growth and others have not. Explanation and review of logic behind most important arguments that have been advanced to account for differences across countries in rates and levels of economic development. May be applied toward either Field IV or V. Letter grading.

157D. Political Institutions and Economic Development. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Preparation: one statistics course. Designed for juniors/seniors. Data analytic approach to question of why some countries are rich and others are poor, with special attention to evidence about how governments and political institutions affect economic development. May be applied toward either Field IV or V. Letter grading.

157E. Comparative Political Analysis. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Requisite: course 50. Political economy approach to puzzle of why some countries are rich and others are poor and why, among other factors, some have been able to achieve rapid rates of economic growth and others have not. Explanation and review of logic behind most important arguments that have been advanced to account for differences across countries in rates and levels of economic development. May be applied toward either Field IV or V. Letter grading.
171B. Collective Choice and Majority Rule. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Required course 3D. Designed for juniors/seniors. How do different ways of counting and casting votes affect political decisions? When can voting rules be manipulated by leaders and voters? Examples in legislative, electoral, and judicial politics. P/NP or letter grading.

171C. Legislative Strategy. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Required course 3B. Designed for juniors/seniors. How do politicians get policy changes passed by legislatures, city councils, and other voting bodies? Applications of game-theoretic reasoning to common strategies and tactics in policy-making. P/NP or letter grading.

171D. Negotiation. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Required course 3C. Designed for juniors/seniors. Study of negotiation and bargaining in different contexts. Experiential exercises on various aspects of negotiation, including coalition formation, honesty, and role of agents. P/NP or letter grading.

172. Strategy and Conflict. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Enforced requisite: course 3D. Designed for juniors/seniors. Intermediate topics in game theory applied to political problems, with special attention to strategic contexts of political action and information asymmetries. P/NP or letter grading.

179. Special Topics in Methods and Models. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Required course 3D. Designed for juniors/seniors. Intensive examination of one or more special problems related to methods and models in political science. Sections offered on regular basis, with topics announced in preceding term. May be repeated for credit with topic change. P/NP or letter grading.

Field VI: Race and Ethnic Politics

M180A. African American Political Thought. (4) (Same as African American Studies M114AC and Labor Studies M114AC.) Lecture, three or four hours; discussion, one hour (when scheduled). Enforced requisite: course 3D. Designed for juniors/seniors. Focus on understanding the experiences of African Americans and the political philosophies as they have been applied and interpreted by African Americans. Debates and conflicts in black political thought, historical context of African American social movements, and the relationship between black political thought and major trends in Western thought. P/NP or letter grading.

M181A. Latinos in America. (4) (Formerly numbered 181B.) (Same as Chicana and Chicano Studies M155B.) Lecture, four hours; discussion, one hour (when scheduled). Required course 3D. Designed for juniors/seniors. Focus on understanding the experiences of Latinos in U.S. political system. Topics include historical analysis of Latino immigration and migration; civil rights movement; increases in citizenship; and examples of modern-day political scholars. P/NP or letter grading.

M182. Political Science: African American Politics. (4) (Same as African American Studies M144.) Lecture, three or four hours; discussion, one hour (when scheduled). Preparation: one 140-level course or one upper-division course on race or ethnicity from history, psychology, or sociology. Required course 40. Designed for juniors/seniors. Examination of dynamics of minority group politics in U.S., touching on conditions facing racial and ethnic groups, with blacks Americans being the primary case studies. Three primary objectives: (1) to provide descriptive information about social, political, and economic conditions of black community, (2) to analyze important political issues facing black Americans, (3) to sharpen students' analytical skills, P/NP or letter grading.

M184A. Black Experience in Latin America and Caribbean I. (4) (Same as African American Studies M154AC.) Lecture, three or four hours; discussion, one hour (when scheduled). Required course 3D. Designed for juniors/seniors. Culture, history, politics, and identity of African Americans in Spanish and Lusophone Caribbean, South America, and for America. Exploration of issues of identity in context of Afro/Latino migration to U.S. P/NP or letter grading.

M184B. Black Experience in Latin America and Caribbean II. (4) (Same as African American Studies M154AD.) Lecture, three or four hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Examination of issues regarding race and ethnicity in Latin America, with emphasis on comparisons to U.S. and Latin America, and of Latin populations and African and indigenous origins, with emphasis on former. P/NP or letter grading.

186. Special Studies in Race, Ethnicity, and Politics. (4) Lecture, three or four hours; discussion, one hour (when scheduled). Required course 3D. Designed for juniors/seniors. Intensive examination of one or more special problems related to race, ethnicity, and politics in political science. Sections offered on regular basis, with topics announced in preceding term. May be repeated for credit with topic change. P/NP or letter grading.

Special Studies

188SA. Individual Studies for USIE Facilitators. (1) Tutorial. To be arranged. Enforced requisite: Honors Collegium 101E. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor to discuss selected USIE seminar topic, conduct preparatory research, and begin preparation of syllabus. Individual contract with faculty mentor required. May not be repeated. Letter grading.


188SC. Individual Studies for USIE Facilitators. (2) Tutorial. To be arranged. Enforced requisite: course 188SB. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor to finalize course syllabus. Individual contract with faculty mentor required. May not be repeated. Letter grading.

189. Honors Advanced Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to undergraduate lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors credit noted on transcript. P/NP or letter grading.

189CH. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to upper-division lecture course. Individual research and supervised research to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors credit noted on transcript. Letter grading.

190. Research Colloquia in Political Science. (1) Seminar, one hour. Designed to bring together students undertaking supervised tutorial research in seminar setting with one or more faculty members to discuss their own work or related work in discipline. Led by one supervising faculty member. May be repeated for credit. P/NP grading.

190H. Honors Research Colloquia in Political Science. (1) Seminar, one hour. Designed to bring together students writing departmental honors theses in seminar setting with one or more faculty members to discuss their thesis work in progress. Led by one supervising faculty member. P/NP grading.

191A-191F. Variable Topics Research Seminars for Majors. (1-3 each) Seminar, three hours. Preparation: the upper-division courses in fields in which seminar is offered. Limited to junior/senior Political Science majors with 3.25 grade-point average in upper-division political science courses and permission of Class for topics to be offered in specific term. Reading, discussion, and development of culminating project. May be applied toward degree or concentration requirement. May be repeated for credit. P/NP or letter grading. 191A. Political Theory; 191B. International Relations; 191C. Politics; 191D. Comparative Government; 191E. Methods and Models; 191F. Race, Ethnicity, and Politics.

M191DC. CAPPP Washington, DC, Research Seminars. (8) (Same as Communication M191DC, History M191DC, Public Affairs M191DC, and Sociology M191DC.) Seminar, three hours. Limited to CAPPP Program students. Seminar for undergraduate students in Center for American Politics and Public Policy's program in Washington, DC. Focus on development and execution of original research based on experience with letters and field placements. Study of variety of qualitative methods (observation, interviewing, etc.), with comparison to quantitative analysis. Examination of features of solid and significant research; intensive writing. Letter grading.

191H. Research Design Seminar for Honors Thesis. (4) Seminar, four hours. Preparation: one course in 100- or 200-level social science major. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be repeated for credit. P/NP grading.

193. Journal Club Seminars: Political Science. (1) Seminar, two hours. Limited to undergraduate students. Discussion of readings selected from current literature in field. Consists of discussions of topics to be offered in specific term. May be repeated for credit. P/NP grading.

194. Research Group Seminars: Political Science. (2) Seminar, three hours. Designed for undergraduate students who are part of research group. Discussion of research methods and current literature in field of research of faculty members or students. May be repeated for credit. P/NP grading.

M194DC. CAPPP Washington, DC, Research Seminars. (4) (Same as History M194DC and Sociology M194DC.) Seminar, three hours. Limited to CAPPP Quarter in Washington students and other students entitled in UC Washington Center programs. Seminars for undergraduate students in Center for American Politics and Public Policy’s program in Washington, DC. Focus on development and execution of original research based on experiences from Washington, DC-based field placements. Study of variety of qualitative methods (observation, interviewing, etc.), with comparison to quantitative analysis. Examination of features of solid and significant research; intensive writing. Letter grading.

195CE. Community and Corporate Internships in Political Science. (4) Tutorial, to be arranged; fieldwork, eight to 10 hours. Limited to juniors/seniors. Internship in corporate, governmental, or nonprofit setting coordinated through Center for Community
Learning. Students complete weekly written assignments, attend biweekly meetings with a graduate student instructor, and write final research paper. Faculty sponsor and graduate student instructor construct series of reading assignments that examine issues related to internship site. May be repeated for credit with consent of Center for Community Learning. No more than 8 units may be applied toward major; units applied must be taken for letter grade. May not be applied toward concentration or distribution requirements. Individual contract with supervising faculty member required. P/NP or letter grading.

M195DC. CAPPP Washington, DC, Internships. (4) (Same as History M195DC, Public Affairs M195DC, and Sociology M195DC) Tutorial, four hours. Limited to junior/senior CAPPP Program students. Internships in Washington, DC, through Center for American Politics and Public Policy. Students meet on regular basis with instructor and provide periodic reports of their experience. Individual contract with supervising faculty member required. P/NP grading.

196. Honors Research in Political Science. (1 to 4) Tutorial, two hours. Requisite: course 191H. Limited to juniors/seniors. Development and completion of honors thesis or comprehensive research project under direct supervision of faculty member. May be repeated for credit. Individual contract required. Letter grading.

199. Directed Research in Political Science. (2 to 8) Tutorial, two hours. Limited to juniors/seniors. Supervised individual research or investigation under guidance of faculty mentor. Culminating paper or project required. May be repeated for maximum of 16 units. Individual contract required. P/NP or letter grading.

Graduate Courses

Formal Theory and Quantitative Methods

200A. Probability and Inference for Social Science. (4) Lecture, three hours; discussion, one hour; field work, eight hours. Requisites: courses 200A, 200B. Preparation: prior exposure to coding in R. Introduction to research design and analysis. Basic tools of investigation, modeling social problems. Inference and application to practice of regression analysis. Emphasis on relationship of these statistical tools for drawing causal inferences; prediction and description. Focus on principles of statistical inference, difference between design-based inference and model-based inference, identification versus estimation, building blocks of causal inference, characterization of regression model, diagnostics and extensions of regression model, threats to validity of our estimates. Students become comfortable coding in statistical programming language R. S/U or letter grading.

200C. Causal Inference for Social Science. (4) Lecture, three hours; discussion, one hour; field work, eight hours. Requisites: courses 200A, 200B. Preparation: familiarity of basic probability theory and statistics, linear algebra. Clarification of conditions under which estimates made using non-experimental data can be given causal interpretation. Strategies for accessing and maximizing causal claims made with non-experimental evidence. Designs and methods, including experiments, matching, regression, panel methods, difference-in-differences, synthetic control methods, instrumental variables, regression discontinuity designs, and sensitivity analyses. Reinforcement of some basic skills from probability and statistics. S/U or letter grading.

200D. Advanced Likelihood for Social Science. (4) Seminar, three hours; field work, eight hours. Introduces to theory and practice of maximum likelihood analysis in political science, including discrete choice models, event count models, and duration models. Lectures combine traditional formal mathematical derivations of various estimators and their properties with Monte Carlo simulations and discussion of applications and practice. S/U or letter grading.

200E. Experimental Design for Social Science. (4) Seminar, three hours; field work, eight hours. Preparation: familiarity with statistics of causal inference at level of course 200D. Covers design, analysis, and implementation of experimental research in social sciences. Emphasis on field experiments, though most issues that are covered are relevant to other methods including laboratory, laboratory-in-the-field, and survey experiments. S/U or letter grading.

200F. Advanced Statistical Topics for Social Science. (4) Seminar, three hours; field work, eight hours. Preparation: courses 200A through 200E. Topics vary according to student interest. May be repeated for credit. S/U or letter grading.

200X. Data Analysis Workshop. (4) Seminar, three hours. Enforced requisite: course 200C. Course 200X is enforced requisite to 200E. Not open for credit to students with credit for course 200X. Practice in applying statistical techniques to political science data. S/U or letter grading.

200Y-200Z. Data Analysis Workshops. (2–2) Seminar, two hours; field work, eight hours. Preparation: any course. Practice in applying statistical techniques to political science data. S/U or letter grading.

201A. Introduction to Formal Political Analysis. (4) Seminar, three hours. Survey of formal political theory to enhance literacy and provide analytical tools without statistical mathematical background. Model building, collective goods, unanimity and the social contract, voting rules, paradoxes and impossibility theorems, stability, individual liberty and decentralization, strategic manipulation representation, vote trading.

201B. Theory of Collective Choice. (4) Seminar, three hours. Recommended preparation for political science students: course 201A. Open to any student of political economy, philosophy, or mathematics with ability for deductive reasoning. Introduction to abstract, deductive study of voting systems and other collective-choice processes. Axiomatic method applied to politics and political economy, concept of rationality, and agenda control, choice-set or solution concepts.


203A. Economic Theory and Methods for Political Science I. (4) Lecture, three hours; preparation: knowledge of elementary calculus. Introduction to techniques of economic analysis and survey of major topics in formal political economy. Investigation of models of regulation, trade protection, collective bargaining, and economic growth as time permits.

203B. Economic Theory and Methods for Political Science II. (4) Lecture, three hours. Requisites: course 203A. Continuing survey of microeconomic techniques used in formal political science, with focus on market failures and on modeling individual choice in nonmarket situations. Specific topics include externalities, public goods, public choice, private rights, public administration, political parties, and political finance.

204A. Game Theory in Politics I. (4) Seminar, three hours. Survey of game theory, with emphasis on utilizing mathematical models to understand political and economic phenomena. Applications concern political participation, public goods, legislatures, industrial regulation, bureaucracies, interest groups, and party competition. Designed to help students use advanced game theory in their research. S/U or letter grading.

204B. Game Theory in Politics II. (4) Seminar, three hours. Preparation: course 204A. Advanced game theory course. Topics include games of incomplete information, cheap talk games, and bargaining theory. Applications concern political participation, public goods, legislatures, bureaucracies, conflict, and communication. Designed to help students use game theory in their research. S/U or letter grading.

204C. Game Theory in Politics III. (4) Seminar, three hours; field work, eight hours. Requisites: courses 204A, 204B. Advanced game theory course with emphasis on new and/or advanced techniques. Topics include timing games, stochastic games, and mechanism design. Applications concern bureaucracies, collective bargaining, and political transitions. Designed to help students use advanced game theory in their research. S/U or letter grading.

205. Topics in Applied Game Theory. (4) (Same as Psychology M257 and Statistics M242.) Lecture, three hours. Introduction to models and methods for analysis of political behavior, generated by unmeasured latent variables, including latent variable analogues of traditional methods in multivariate analysis. Causal modeling: theory testing via analysis of moment structures. Measurement models such as confirmatory, higher-order, and structured-mean factor analytic models. Structural equation models, including path and simultaneous equation models. Marginal parameter estimation, and other statistical issues. Computer implementation. Applications. S/U or letter grading.

M208A. Bayesian Econometrics. (4) (Same as Economics 231A.) Lecture, three hours. Requisites: Economics 231A, 231B. Substantial probability, introduction to decision theory. Bayesian analysis of regression, sensitivity analysis, simplification of models, criticism. May be repeated for credit. S/U or letter grading.


Political Theory

210A-210B. Political Theory Field Seminar 1, 2. (4–4) Lecture, three hours; field work, eight hours. S/U or letter grading.

210A. Exploration of major texts and issues in political theory. Exploration of major texts and issues in political theory.


214. Political Theory in Transnational Context. (4) Seminar, three hours; discussion, one hour (when scheduled). Critical analysis of selected text from postcolonial, spatial, feminist, postmodern, and post-structuralist theories that assess impact of processes of globalization on such major concepts and problems of traditional social and political theory as sovereignty, citizenship, rights, community, representation, and democracy. S/U or letter grading.

215. Liberalism and its Critics. (4) Seminar, three hours; discussion, one hour (when scheduled). Examination of works of one or more major contemporary liberal theorists (Rawls, Dworkin, Habermas, Nussbaum, etc.) in light of alternatives which have been proposed to the liberal position (communitarianism, post-structuralism, group rights theories, etc.). S/U or letter grading.

217. Selected Texts in Political Theory. (4) Seminar, three hours. Critical examination of major texts in political theory, with particular emphasis on their philosophical system, their relations to contemporary political and intellectual currents, and importance of system for present-day political analysis. S/U or letter grading.


International Relations

220A. International Relations Core Seminar I. (4) Seminar, three hours. Introduction to international relations theories and methods of analysis, and research styles. Letter grading.

220B. International Relations Core Seminar II. (4) Seminar, three hours. Further analysis of academic work in international relations and introduction to design of research project in this area. Letter grading.

220C. International Relations Research Seminar. (4) Seminar, three hours; tutorial meetings, to be arranged. Design, implementation, and presentation of research project on international relations within combination of seminar and tutorial settings. Letter grading.

222. Seminar: Strategic Interaction. (4) Seminar, three hours. A strategic move influences the other participant's choice, affecting his/her expectations of how we will behave. Discussion of theories of deterrence, coercive diplomacy, crisis management, war termination, and negotiation. Use of various theoretical approaches to explaining strategic interaction, including psychology, bargaining theory, and game theory.


225. American Foreign Policy. (4) Discussion, three hours. Discussion of approaches used to explain foreign policy-making at individual, small group, bureaucratic, and domestic levels. Application to selected cases in American foreign policy.


230. Contending Perspectives on International Political Economy. (4) Discussion, three hours. Survey of various theoretical approaches to international political economy.

231. International Political Economy I. (4) Seminar, three hours. An interregional and intercontinental political economy macro, signaling, and participation models, as well as two-level game models of domestic politics and international conflict and cooperation, with emphasis on applications in international political economy and comparative politics.

233A-233B-233C. Political Economy Workshops (4-4-4). Discussion, two hours. Preparation: successful completion of major field examinations. Workshops for students writing or preparing to write dissertations. Reading and discussion of research in progress presented by UCLA faculty, visiting scholars, and advanced graduate students. Research papers publishable length (5,000 words). S/U or letter grading.

234A-234B-234C. Workshops: National Security, Foreign Policy, and International Relations (0–0–12). Discussion, seminar and/or reading for students preparing for or working on dissertations. Reading and discussion of research in progress presented by UCLA faculty, visiting scholars, and advanced graduate students. Major research paper required. In Progress (234A, 234B) and letter (234C) grading.

239. Selected Topics in International Relations. (4) Seminar, three hours. S/U or letter grading.

Comparative Politics

240A-240B. Seminars: Comparative Politics. (4–4) Seminar, three hours. Course 240A is not requisite to 240B. Three courses. Survey of ideas and approaches that have historically been important in field of comparative politics, with selection of theories and methodologies that have had field over time. S/U or letter grading.

240B. Survey of contemporary research approaches and problems in field of comparative politics, with a range of theories and methodologies used by practitioners in the field.


244. Latin American Politics. (4) Seminar, three hours. Survey of contemporary research approaches and problems in Latin American politics. S/U or letter grading.

245. Middle Eastern Politics. (4) Seminar, three hours. Survey of contemporary research approaches and problems in Middle Eastern politics. S/U or letter grading.

246A. Western European Politics. (4) Seminar, three hours. Survey of contemporary research approaches and problems in Western European politics. S/U or letter grading.

246B. Political Development of Modern Europe. (4) Seminar, three hours; discussion, one hour (when scheduled). Principal political and economic determinants of domestic politics. S/U or letter grading.


247B. Domestic Context of Russian Foreign Policy. (4) Seminar, three hours. Examination of domestic political and economic conditions that give rise to foreign policy. S/U or letter grading.


251. Political Economy of Economic Reform. (4) Discussion, three hours. Some familiarity with economic reform and consideration of political issues that arise from this process. Letter grading.

252. Parties and Party Systems. (4) Seminar, three hours; discussion, one hour (when scheduled). Theories and practices of political parties, party systems, and elections in comparative perspective.

253. Political Change in Communist Systems. (4) Discussion, three hours. Examination of political context and consequences of structural reform in Communist systems; theories of post-Leninist political pluralization and convergence.

254A-254B. Institutions and Comparative Politics. (4–4) Seminar, three hours; discussion, one hour (when scheduled).

254A. Comparative Institutional Analysis. (4) Seminar, three hours; discussion, one hour (when scheduled). Use of advances of rational choice theory and new institutionalism to compare and analyze major institutional structures, including presidentialism vs. parliamentarism, unicameralism vs. bicameralism, two-party vs. multiparty systems, cadre vs. mass parties, and plurality vs. proportional electoral systems.

254B. Political Institutions, Delegation, and Policy-Making. (4) Seminar, three hours; discussion, one hour (when scheduled). Analysis of political foundations of policy-making. Characterization of democratic institutions as a series of delegations, from voters to elected officials, within parties and legislatures, and from elected politicians to unelected bureaucrats. Examination of implications of different institutional designs for how those delegations are made and controlled.

255. Seminar: Political Economy of Developing Countries. (4) Seminar, three hours. Interdisciplinary seminar directed toward comparative analysis of political development and modernization. S/U or letter grading.

256. External Sources of Domestic Politics. (4) Discussion, three hours. Theoretical and historical studies of impact of war and trade on domestic cleavages, policy, and institutions. S/U or letter grading.

257. Labor and Working-Class Politics. (4) Discussion, three hours. Questions and topics on comparative labor and working-class politics. S/U or letter grading.


259. Selected Topics in Comparative Politics. (4) Discussion, three hours. Critical examination of major problems in comparative politics. S/U or letter grading.

American Politics


M261A. Prosseminar: Political Psychology. (4) (Same as History M236A and Psychology M228A) Seminar, three hours. Introduction to political psychology: psychobiography, personality and politics, mass attitudes, group conflict, political communication, and elite decision-making. S/U grading.

261B. Mass Attitudes and Political Behavior. (4) Seminar, three hours. Required: course 141B or 260A. Analysis of development and change of political attitudes in mass publics and their relationship to voting, protest, and violence. S/U or letter grading.

261C. Political Communication. (4) Discussion, three hours. Broadcast survey of research bearing on role of mass media in the American political process. Topics include theories of persuasion, evolution of “media effects” research, reporting and advertising as determinants of election outcomes, adversarial versus deferential journalism, and analyses of media bias.

M261D. Seminar: Political Psychology. (4) (Same as Psychology M228B) Discussion, three hours. Required: course M261A or Psychology 220A Analysis of political behavior, political socialization, racial conflict, mass political movements, and public opinion. S/ U or letter grading.

M261E. Critical Problems in Political Psychology. (4) (Same as Psychology M228C) Discussion, three hours. S/U or letter grading.

262. Political Parties. (4) Seminar, three hours. Critical examination of literature on political parties and organization. Special attention to political functions, electoral campaigns, and party cadres. S/U or letter grading.


266. Group Theories of Politics. (4) Discussion, three hours. Critical appraisal of “group theory” approaches to study of political decision making, with special attention to empirical research problems and findings. S/U or letter grading.


270. Legislative Behavior. (4) Seminar, three hours. Analysis of major approaches to study of representative institutions, with special emphasis on assumptions, concepts, methods, and theoretical implications associated with each approach. S/U or letter grading.

271. Executive Politics and Presidency. (4) Seminar, three hours. Analysis of executive organization and leadership, with emphasis on American Presidency. Special attention to theories of organization and personality and relationships between executive and other institutions and groups. S/U or letter grading.


280A. Race and Ethnic Politics Field Seminar 1. (4) Seminar, three hours; field work, eight hours. Theories, methods, and development of paradigms in study of race and ethnic politics. S/U or letter grading.

280B. Research Methods in Race-Ethnicity Politics. (4) Seminar, three hours; field work, eight hours. Second course in race-ethnicity politics field seminar sequence. Review, dissection, discussion, and debate of different research methods that are used in race-ethnicity politics scholarship and advantages and disadvantages of different approaches and methodological approaches. S/U or letter grading.

289A. Approaches to Study of Race, Ethnicity, and Politics. (4) Seminar, three hours. Analysis of alternative theoretical, methodological, and empirical approaches to study of race, ethnicity, and politics. S/U or letter grading.

289B. Current Research on Race, Ethnicity, and Politics. (4) Seminar, three hours. Exploration of current research on race, ethnicity, and politics. S/U or letter grading.

Special Studies

290. Modern Political Economy. (4) Discussion, three hours. Discussion of implications for understanding of politics of thinking of politicians, bureaucrats, producers, consumers, and nations as utility maximizers. Topics include microfoundations for macro models, forms of political participation, state, government regulation, growth of government, bureaucracy elections, public policy, inflation. S/U or letter grading.

292A. Introduction to Political Inquiry: Problems of Scientific Inquiry and Normative Discourse. (2) Seminar, two hours; discussion, one hour (when scheduled). S/U grading.

292B. Introduction to Political Inquiry: Research Design. (4) Seminar, three hours; discussion, one hour (when scheduled). Design of qualitative and quantitative empirical research projects. S/U or letter grading.

293. Great Ideas in Social Sciences. (2) Seminar, two hours. Vehicle for faculty and visitors to teach research seminars of variable length. Special training opportunities on advanced quantitative methods, including complexity theory, agent-based modeling, experimental economics, social cognitive neuroscience, and evolutionary psychology, to be offered at irregular intervals. May be repeated for credit. S/U grading.

375. Teaching Apprentice Practicum. (1 to 4) Seminar, to be arranged. Preparation: apprentice personnel employment as teaching assistant, associate, or fellow. Teaching apprenticeship under active guidance and supervision of regular faculty member responsible for curriculum and instruction at UCLA. May be repeated for credit. S/U grading.

495A. Teaching Political Science 1. (4) Seminar, three hours. Intensive training during Spring Quarter. Required of all new PhD students and potential departmental teaching assistants. Practical and theoretical issues in teaching of political science. S/U grading.

495B. Teaching Political Science 2. (4) Seminar, two hours. Requisite: course 495A. Workshop in teaching techniques, including evaluation of each student’s own performance as a teaching assistant. Normally to be taken by all new teaching assistants in first term of their assistantships. May be taken only in term in which students are teaching assistants. May not be applied toward MA or PhD course requirements. S/U grading.

501. Cooperative Program. (2 to 8) Preparation: consent of UCLA graduate advisor and graduate dean, and host campus instructor, department chair, and graduate dean. Used to record enrollment of UCLA students in courses taken under cooperative arrangements with USC. S/U grading.

576. Directed Individual Study or Research. (2 to 4) Tutorial, to be arranged. May be applied only three times toward minimum course requirement in first two years. May be repeated. S/U or letter grading.

597. Preparation for PhD Qualifying Examinations. (2 to 12) Tutorial, to be arranged. May be repeated. S/U grading.

599. Research for and Preparation of PhD Dissert. (2 to 12) Tutorial, to be arranged. May be repeated. S/U grading.

Scope and Objectives

The Department of Psychiatry and Biobehavioral Sciences offers interdisciplinary courses related to the mental health professions of the biobehavioral sciences in addition to its programs for psychiatry interns and residents and for medical students. Enrollment in department courses is limited to registered UCLA students, students registered in programs officially affiliated with UCLA, and students enrolled concurrently through UCLA Extension. Students who meet these requirements, but who are not affiliated with a departmental training program, must also meet required course requisites determined by specific educational programs.

Doctoral Internship Program in Clinical Psychology

The department offers a 12-month Doctoral Internship Program in Clinical Psychology. Students enrolled in clinical psychology doctoral programs at APA-approved universities are eligible to apply. Applications are accepted from September 1 through November 1. The primary goal of the internship is to provide a year of intensive exposure to a wide variety of clinical experiences. The training is designed to maximize the personal growth of each intern. Interns are expected to develop proficiency in an area of focus as well as gain experience outside of their specific area of interest. At the beginning of the year, trainees design a program, both to supplement and complement previous development. Within the learning settings chosen by the trainee, every effort is made to teach the specific techniques necessary to gain competence. The great variety of resources makes both the individualized choice and the acquisition of skills possible. Students interested in this program should contact the program office at 37–360A Semel Institute, 310–794–5715.

Psychiatry and Biobehavioral Sciences

Lower-Division Courses

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

79. Applied Positive Neuroscience: Skills for Improving Productivity and Wellbeing. (5) Lecture, three hours; discussion, one hour. Not open to students with credit for Community Health Sciences 179. Intrapersonal, interpersonal, and extraverted personality, and communication contributions to wellbeing, and how activity and chemistry of key brain regions contribute to each, e.g., influences of mindfulness on prefrontal cortex activity, or how oxytocin is altered by social interaction. Students learn to recognize and analyze unconscious responses to social stimuli, and social and emotional competence for healthy development, and how to apply to their own lives. Through neuroscientific context, introduction to multidisciplinary perspectives on variety of topics that are widely considered significant maturational tasks for young adults, including emotion regulation, managing social relationships, enhancing productivity, and identity development. Letter grading.

Psychiatry and Biobehavioral Sciences

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Alex J. Kopelowicz, MD, Vice Chair
Ira M. Lesser, MD, Vice Chair
Stephen R. Marder, MD, Vice Chair
James T. McCracken, MD, Vice Chair
Thomas B. Strouse, MD, Vice Chair
Andrew J. Fuligni, PhD, Associate Chair, Academic Affairs
Margaret L. Stuber, MD, Associate Chair, Medical Student Education

Lecture,
99. Student Research Program. (1 to 2) Tutorial (supervised research or other scholarly work), three hours per week per unit. Entry-level research for lower-division students under guidance of faculty mentor. Students must be in good academic standing and enrolled in major excluding clinical courses. Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP grading.

Upper-Division Courses

174. Brain and Behavioral Health: Childhood and Adolescence. (5) Seminar, three hours. Limited to junior/senior Neuroscience and Psychotherapy Psychology majors. Integration of problem-based learning approach to teach foundational information about application of brain and behavioral science to understanding and promotion of mental health and well-being. Examination of the effects of psychiatric illness during childhood, adolescence, and adulthood offering direct exposure to health-care practice. Focus on key topics (e.g., depression, anxiety disorders, substance use disorders) during childhood and adolescence. Research of childhood and adolescent mental health and public policy literature. Guest facilitators with expertise complement study of emerging treatment advances, applications, and barriers. Letter grading.

175. Mindfulness Practice and Theory. (4) Seminar, five hours. Experience, prior exposure with meditation not required. Introduction to mindfulness, including basic mindfulness meditation practices, both sitting and moving, ways to deepen positive emotions, like gratitude, kindness, and joy. Methods for integrating more awareness and creativity into everyday activities. Examination of meditative traditions as well as emerging science on beneficial effects of mindfulness practice for mental and physical health. Beneficial effects include reduced stress, improved attention, reduced emotional reactivity, and greater mind-body awareness. Learning and development of skills of relational mindfulness in interactions with others. Offered in summer only. P/NP or letter grading.

176. Brain and Behavioral Health: Adulthood and Aging. (5) Seminar, five hours. Limited to junior/senior Neuroscience and Psychotherapy Psychology majors. Integration of problem-based learning approach to teach foundational information about application of brain and behavioral science to understanding and promotion of mental health and well-being. Examination of development of skills of relational mindfulness in interactions with others. Offered in summer only. P/NP or letter grading.

Graduate Courses

M210. Editorial Board Apprenticeship. (2) Same as Health Policy and Management M249Q.) Seminar, two hours. Designed for postdoctoral fellows and advanced PhD students. Participation in peer review process for academic journal, Health Psychology, with consideration of interface between behavioral science, health, and medicine. Reading and discussion of submission and advising of editor on suitability for full review. S/U or letter grading.

226A-226B. Child Development. (2 to 8) Seminar, two hours. Limited to juniors/seniors. Supervised individual research or investigation under guidance of faculty mentor. Culminating paper required. May be taken for letter grade. Individual contract required. P/NP or letter grading.

228A-228B. Child Development. (2 to 8) Seminar, two hours. Limited to juniors/seniors. Supervised individual research or investigation under guidance of faculty mentor. Culminating paper required. May be taken for letter grade. Individual contract required. P/NP or letter grading.

229. Seminar: Behavioral Neuroimmunology. (1) Seminar, one hour per month; discussion, 30 minutes per month. Series of lectures presented the second Wednesday of each month throughout academic year by invited speakers. S/U grading.

233. Seminar: Behavioral Neuroimmunology. (1) Seminar, one hour per month; discussion, 30 minutes per month. Series of lectures presented the second Wednesday of each month throughout academic year by invited speakers. S/U grading.


235. Seminar: Child Development. (1) Theories of development, systems of child development, and chronological aspects of child development. Presentation of assigned readings by students plays major role in each session.


237. Legal and Ethical Issues with Vulnerable Populations. (3) Lecture, 90 minutes; laboratory, three and one half hours. Discussion of current laws dealing with vulnerable populations (e.g., children, developmentally disabled people, elderly people); philo- open and critical reading of psychological literature as basis for rational pharmacotherapy in children and adolescents. Major focus on development of a clinical decision-making process, given the limited scientific evidence supporting pharmacological practice in the field. S/U grading.

238. Clinical Pharmacology. (2) Same as Bio- mathematics M263 and Medicine M263.) Lecture, two hours; preparation: completion of prerequisite health sciences degree (MD, DDS, DNP, or PhD). Overview of principles of clinical pharmacology, especially as

and benefits of different courses of action, based on individual genetic background and other elements of personal history and environmental exposures. Introduction to key principles from science of behavior change, illustrating how important health-related behavior theory and intervention strategies can be from change and why. Coverage of series of topics that center on personal enhancement of well-being through consideration of stress management, long-term goals and values, coping of long-term goals onto immediate actions, reinforcement learning, meditation, neurofeedback, and time management. Critical appraisal of tools to help students distinguish scientifically validated procedures. Offered in summer only. Letter grading.

238SA. Individual Studies for USIE Facilitators. (1) Tutorial, to be arranged. Enforced corequisite: Honors Collegium 101E. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor to discuss selected USIE seminar topic, conduct preparatory research, and begin preparation of syllabus. Individual contract with faculty mentor required. May not be repeated. Letter grading.


238SC. Individual Studies for USIE Facilitators. (2) Tutorial, to be arranged. Enforced corequisite: course 238SB. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor while conducting USIE course. Individual contract with faculty mentor required. May not be repeated. Letter grading.

197. Individual Studies in Psychiatry. (2 to 4) Tutorial, four hours. Limited to juniors/seniors. Individual interdisciplinary study are possible to be arranged between faculty member and student. Assigned reading and tangible evidence of mastery of subject matter required. May be taken for letter grade once only. May be repeated for credit. Individual contract required. Additional information and contract forms are available in Office of Education, 38–216 Semel Institute. P/NP or letter grading.

199. Directed Research in Psychiatry and Biobehavioral Sciences. (2 to 8) Seminar, two hours. Limited to juniors/seniors. Supervised individual research or investigation under guidance of faculty mentor. Culminating paper required. May be taken for credit. Individual contract required. P/NP or letter grading.

197. Individual Studies in Psychiatry. (2 to 4) Tutorial, four hours. Limited to juniors/seniors. Individual interdisciplinary study are possible to be arranged between faculty member and student. Assigned reading and tangible evidence of mastery of subject matter required. May be taken for letter grade once only. May be repeated for credit. Individual contract required. Additional information and contract forms are available in Office of Education, 38–216 Semel Institute. P/NP or letter grading.

199. Directed Research in Psychiatry and Biobehavioral Sciences. (2 to 8) Seminar, two hours. Limited to juniors/seniors. Supervised individual research or investigation under guidance of faculty mentor. Culminating paper required. May be taken for credit. Individual contract required. P/NP or letter grading.

M230. Assessment and Treatment of African American Families. (3) (Same as African American Studies M240.) Seminar, two hours. Designed for graduate students. Course aids mental health professionals and trainees in evaluation and treatment of African American families in terms of their cultural milieu, historical background, and economic status. Didactic presentations by instructors and invited guests form basis for discussion, and evaluation and treatment of African American children and families. Letter grading.


253. Seminar: Child Development. (1) Theories of development, systems of child development, and chronological aspects of child development. Presentation of assigned readings by students plays major role in each session.


259. Legal and Ethical Issues with Vulnerable Populations. (3) Lecture, 90 minutes; laboratory, three and one half hours. Discussion of current laws dealing with vulnerable populations (e.g., children, developmentally disabled people, elderly people); philo-
they relate to clinical and translational medicine and to advances in contemporary medicine such as targeting, gene therapy, and genomics. Letter grading.

264. Health and Mental Health Disparities from Psychosocial and Cultural Perspectives. (4) Seminar, three hours. Designed for graduate and medical students interested in research at the juncture between brain, behavior, and immunity. Letter grading. Areas of interest include such psychological issues in anthropology, both theoretical and methodological. Areas of interest include such things as culture and theory, culture and personality, and cultural contexts as potential or contributing factors. S/U grading.

275. Psychoneuroimmunology Research Seminar. (1) Seminar, one hour. Topics to be centered around current directions in psychoneuroimmunology (PNI), including social genomics, inflammation, and biological aging. Common molecular and immunological protocols used in PNI and current directions in PNI research, with emphasis on basic immunology and immunological biology and role of behavior and psychological factors on innate and cell-cell interactions. S/U grading.


281A-281B-281C. Behavioral Therapy in Educational Settings. (4–4–4) Lecture, one hour; laboratory, seven hours. Supervised experience in classroom working with children in conducting therapeutic observations, administering formal assessments, and developing and carrying out individualized educational and behavioral programs. Theoretical background is introduced through one-hour weekly lecture. S/U or letter grading.

M284A-M284B. Principles of Neuroimaging, I, II. (4–4) (Same as Neuroscience M284A-M284B and Psychology M284A-M284B.) Lecture, four and one half hours. Presentation of the major techniques of functional imaging and the concepts underlying these methods. Letter grading.


288. Social and Behavioral Factors of HIV/AIDS: Global Perspective. (4) (Same as Community Health Sciences M284.) Lecture, four hours. Requisites: Community Health Sciences 275 and Epidemiology 100, or prior social sciences courses. Overview of social and behavioral factors which influence both transmission and prevention of HIV/AIDS throughout the world. Letter grading.


294. Essentials of Clinical Investigation. (2) Lecture, two hours; discussion, two hours. Designed for graduate students. Introduction to initial steps in clinical research through preparation of research proposal. Small working groups develop grant proposal on specific topic. S/U grading.


295A. (2) Seminar, two hours; discussion, one hour. Neurobiology and psychopharmacology of drug abuse, as well as epidemiology and prevention. Discussion of pros and cons of various treatment modalities for drug dependence. S/U grading.

295B. (2) Seminar, two hours; discussion, one hour. Drug use patterns and treatment issues in specific populations such as women, adolescents, homeless, multiply diagnosed, as well as different ethnic populations. Exploring the relationships between drug abuse, anxiety, and HIV/AIDS. S/U grading.

295C. (2) Seminar, two hours; discussion, one hour. Theoretical perspectives on drug use and abuse as well as policy and ethical aspects of drug abuse research. Research design and analysis issues pertinent to drug abuse research. S/U grading.

296. Research Group Seminar: Practicum. (2) Research group meeting, three hours. Designed for graduate students who plan to conduct research studies. Coverage of (1) publishing process—including manuscript preparation for journals, selecting appropriate journals, frequent reasons for rejection of manuscripts, and key points in writing articles for publication, (2) overview of National Institutes of Health (NIH), including organization structure and mission, grant application process, funding mechnisms, and review process, (3) preparing/writing grants for submission to NIH, including review of components of successful applications, criteria by which applications are judged, and tips to emphasize particular section, (4) grant mechanisms specifically designed for new investigators, (5) human subjects section for grant applications and IRB issues, and (6) preparation of budgets (modular and detailed) and budget justification for NIH submissions. S/U or letter grading.

375. Teaching Apprentice Practicum. (1 to 4) Seminar, to be arranged. Preparation: apprentice personal environment as teaching assistant, associate, or fellow. Teaching apprenticeship under active guidance and supervision of regular faculty member responsible for curriculum and instruction at UCLA. May be repeated for credit. S/U grading.

402. Journal Club. (1) Seminar, two hours; outside study, two hours. Presentation of participants’ current research. Critical review of recent articles on drug abuse. Training sessions included in areas in which fellows believe they have a recognized need. S/U grading.

403. Individual Case Supervision. (1 to 4) Preparation: submission of written proposal to be structured by instructor and student prior to enrollment; additional information and proposal forms available in Office of Education, 38–216 Semel Institute. One-to-one supervision of individual therapy cases, including analyses of patient data, supervision of ongoing treatment, interview techniques, personality theory, and applications to patient management. S/U or letter grading.

405. Trauma and Sexual Abuse Research Seminar. (4) Seminar, three hours: discussion, one hour. Designed for graduate and medical students and resident physicians interested in learning about biobehavioral trauma research. Introduction to DSM-IV TR diagnostic criteria for posttraumatic stress disorder (PTSD), as well as biopsychosocial sequela. Examination and discussion of child and adult sexual abuse in context of being causative precursors of acute and chronic consequences of PTSD. Statistical analysis, among other biologic variables, within context of physiological markers for PTSD. Review of current modes of treatment, including therapeutic and pharmaco- logical interventions, individual and group. Discussion of research methods particularly important for trauma research. S/U or letter grading.

407A-407B-407C. Clinical Hypnosis Seminars. (2–2–2) Seminar, two hours. Integrated, experientially oriented sequence with lecture, discussion, demonstration, practice, and assigned readings. Guest speakers with expertise in specific hypnotic applications and populations, and video programs included. Trainees and faculty members in clinician’s and patients as well as licensed healthcare providers from community (MCEP credit available) encouraged to enroll. For trainees in social work, psychology, and psychiatry, completion of minimum one academic year of supervised training in psychotherapy or behavior therapy required. S/U grading. 407A. Cultural and historical context for hypnosis; development of technical competent trance inductions, management, and re-altering; and gaining familiarity with trance experiences. 407B. Fundamentals of trance utilization, including diagnosis, creating safety, and facilitating emergence; advanced trance exploration and utilization of hypnotic interventions in specific clinical situations and with specific populations.

M424. Functional Magnetic Resonance Imaging Journal Club. (2) (Same as Physics and Biology in Neuroscience M424.) Discussion, 90 minutes. Limited to 10 students. Current topics in functional neuroimaging, with emphasis on novel applications, analysis, and acquisition methods. Presentation and critique of
425. Teaching Case Conference. (1)

429. Child Outpatient Team. (1) Weekly team meetings to coordinate clinical activities of trainees in Child Outpatient Department. Discussion of literature and theories to coordinate clinical activities of trainees in Child Outpatient Department. Discussion of literature and theories to coordinate clinical activities of trainees in Child Outpatient Department.


431A. Developmental disorders, including autism, Asperger’s, mental retardation, specific learning disabilities, and Attention Deficit/Hyperactivity Disorder. Current conceptualizations of these disorders used to form assessment techniques, including choice of instruments and interpretations of these disorders used to form assessment techniques, including choice of instruments and interpretations of these disorders used to form assessment techniques. Lecture, 90 minutes; discussion, one hour. Advanced clinical training. Team behavior techniques of assessment and treatment of parent/child problems. Lectures, case presentations, and workshops on various skills necessary.

431B. Neuropsychological disorders, head injury, low birth weight, tumors, and epilepsy. 431C. Implementation of research from previous two terms in case presentation format, supplemented with various guest speakers.

434. Seminar: Addiction Psychiatry. (1) Seminar, one hour. Cutting-edge research in neuroscience of addictive behavior, using both animal models and human participants. Neuroscience findings regarding multiple addictive substances (e.g., stimulants, alcohol, nicotine) and related behavioral traits (e.g., impulsivity, risky decision making). Some lectures provided by nationally recognized invited guest speakers. S/U grading.


454. Advanced Topics in Neuropsychology. (1) Seminar, one hour. Coverage of topics in even years that involve interface of neuropsychology with other disciplines, such as cognition and psychopharmacology, cognitive remediation, ecological validity of neuropsychological assessment, cognition and genetics, and psychometrics/test development. Focus in odd years on current models of human neuropsychology, such as models of working memory, neuropsychology of emotion and social cognition, models of implicit versus explicit learning, types of attention, and models of executive processes. S/U grading.

468. Translational Neuroscience of Drug Addiction. (1) Lecture, one hour. Designed for graduate students. Students need cross-disciplinary knowledge to understand drug abuse etiology, behavior, consequences, and treatment. Coverage of major topics in drug addiction by emphasizing use of animal models to understand human addiction and to disclose how findings derived from human studies can be used to expand development of animal models. S/U grading.

479. Genetics Clinic Presentation. (No credit) Weekly clinical teaching session on patients seen in preceding genetics clinic. In-depth discussion on genetics of each disorder.

480. Analysis of Human Chromosome Studies. (1) Chromosome karyotypes prepared in cytogenetics laboratory during preceding week presented and discussed with reference to clinical findings. Teaching includes interpretation of abnormal karyotypes and technical aspects of routine and special chromosome stains.

482. Clinical Practicum in Childhood Anxiety and Related Disorders. (3) Clinic, two hours. Training in cognitive/behavioral assessment and treatment of children and adolescents with anxiety and related disorders. Didactic and experiential training, including direct patient care, clinical supervision, and participation in weekly team meetings. Letter grading.
Excellent opportunities for research experience—e.g., in health psychology. The curriculum also provides experiences in perception, cognition, measurement, personality, animal behavior, learning and memory, motivation, and many other areas such as behavioral neuroscience, clinical, cognitive, cognitive neuroscience, computational cognition, developmental, health, learning and behavior, social, and quantitative psychology. The graduate program is designed to prepare future psychologists for careers as scientific investigators, college and university teachers, and clinical scientists.

Psychology is a subject of considerable interest to most people—we all tend to practice some form of intuitive psychology in an attempt to understand ourselves and the people and groups with whom we interact. The curriculum offered by the Department of Psychology presents psychology as a scientific discipline that employs systematic methods of inquiry to study and explain human and animal behavior—both normal and abnormal—in terms of a variety of underlying variables, including neural, physiological, and cognitive processes; developmental factors and individual differences; and social and interpersonal influences and contexts. According to recent surveys, the Psychology Department is ranked as one of the top departments in the country.

The undergraduate curriculum has been designed to reflect the extensive breadth of psychology—both the range of behavioral phenomena studied and the variety of methods and theoretical approaches employed—while allowing students to pursue in greater depth those areas in which they become most interested. Beyond basic core courses, students can take many specialized courses in areas such as behavioral neuroscience, animal behavior, learning and memory, motivation, perception, cognition, measurement, personality, and clinical, social, developmental, community, and health psychology. The curriculum also provides excellent opportunities for research experience—either in the form of laboratory courses or by participation with faculty members and graduate students in a variety of research projects.

Three undergraduate majors are offered: a BA in Psychology, a BS in Cognitive Science, and a BS in Psychobiology. While the majors overlap in certain fundamental and basic knowledge bases, they differ considerably in their focus (i.e., the extent to which certain areas of psychology and related disciplines are studied) and in terms of the different student interests and needs they satisfy. For nonmajors, the department offers many courses that provide students with new and valuable insights into the understanding of human behavior, including their own. At the graduate level, the department offers training leading to the PhD degree with emphases in the areas of behavioral neuroscience, clinical, cognitive, cognitive neuroscience, computational cognition, developmental, health, learning and behavior, social, and quantitative psychology. The graduate program is designed to prepare future psychologists for careers as scientific investigators, college and university teachers, and clinical scientists.

### Undergraduate Study

The Cognitive Science major is a designated capstone major. Students are required to produce a paper based on each term of their experience in a research laboratory or approved fieldwork site. Through completion of the capstone experience students are expected to identify a research topic and hypothesis to be tested or a fieldwork project and goals, show that they can organize and integrate information related to the topic or project in a clear manner in their own words, demonstrate ability to find and utilize supporting literature relevant to their project or topic, and successfully relate the paper to their experience in the laboratory or fieldwork setting.

### Psychology BA

The Psychology major is the most general of the three majors and offers both broad and in-depth coverage of the fundamental and traditional areas of psychology. It provides students with a strong foundation for postgraduate education in psychology and can serve as excellent background to prepare them for further training in such fields as law, education, government and public policy, business, and many of the health-related professions. Its basic liberal-arts orientation also provides students with an excellent foundation for immediate postbaccalaureate careers in many areas, particularly ones in which an understanding of human behavior and its diversity of expression would be an asset.

The requirements described below represent the minimum requirements in satisfaction of the preparation and the major. Additional courses in psychology, statistics, and related sciences, as well as other types of research and fieldwork experiences, are highly recommended if students plan to pursue graduate work in psychology and related fields. Under special circumstances, graduate-level courses can be taken by undergraduate students, although such courses may not be applied toward degree requirements for the major. For additional information, contact the Undergraduate Advising Office.

### Learning Outcomes

The Psychology major has the following learning outcomes:

- Demonstrated ability to design an experiment in a field of psychology
- Ability to formulate a hypothesis based on knowledge of current literature
- Demonstrated application of principles of control groups and appropriate methodology
- Demonstrated awareness of major research methods in chosen area of psychology
- Demonstrated ability to apply appropriate statistical methods in analyzing data
- Demonstrated ability to write up results of an experiment
- Ability to relate finding to current literature and interpret them in this context
- Ability to discuss results in front of a group of other students
- Ability to verbally communicate ideas motivating experiments
- Ability to clarify experiment to those not familiar with the methods and answer questions

### Premajor

Students need to file a petition in the Undergraduate Advising Office to declare the Psychology premajor. Psychology premajors can petition to declare the Psychology major once they have (1) satisfied all the preparation for the major requirements and (2) are accepted into the major through a competitive application process (for students who entered UCLA as freshmen) or file a petition to declare the Psychology major (for students who entered UCLA as transfer students).

### Preparation for the Major

Each of the following required courses must be taken for a letter grade (C or better in Psychology 10, 100A, and 100B, C– or better in the remaining courses): Life Sciences 1 or 7A or 15 or Physiological Science 3; Chemistry and Biochemistry 14A or 17 or 20A or Physics 1A or 5A or 10 or 11; one course from Mathematics 2, Program in Computing 10A, Statistics 10, or one term of calculus; one course from Philosophy 1, 2, 3, 4, 5, 6, 7, 8, 9, 21, 22, 22W, 23, 31; Psychology 10, 100A, 100B. Students cannot take Psychology 100B until they have passed course 100A with a grade of C or better. Psychology 100A and 100B are only open to students who have declared the Psychology premajor before the term in which they plan to enroll. It is recommended that students with no background in introductory statistics take Statistics 10 before enrolling in course 100A.

Students who repeat more than two preparation courses or any preparation course more than once are denied admission to the major.

### Freshman Students

Students may declare the Psychology premajor once they have established a 2.5 grade-point average in at least one preparation for the major course. Students must petition to declare the Psychology major and can do so once they complete all seven

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**Scope and Objectives**

Psychology is a subject of considerable interest to most people—we all tend to practice some form of intuitive psychology in an attempt to understand ourselves and the people and groups with whom we interact. The curriculum offered by the Department of Psychology presents psychology as a scientific discipline that employs systematic methods of inquiry to study and explain human and animal behavior—both normal and abnormal—in terms of a variety of underlying variables, including neural, physiological, and cognitive processes; developmental factors and individual differences; and social and interpersonal influences and contexts. According to recent surveys, the Psychology Department is ranked as one of the top departments in the country.

The undergraduate curriculum has been designed to reflect the extensive breadth of psychology—both the range of behavioral phenomena studied and the variety of methods and theoretical approaches employed—while allowing students to pursue in greater depth those areas in which they become most interested. Beyond basic core courses, students can take many specialized courses in areas such as behavioral neuroscience, animal behavior, learning and memory, motivation, perception, cognition, measurement, personality, and clinical, social, developmental, community, and health psychology. The curriculum also provides excellent opportunities for research experience—either in the form of laboratory courses or by participation with faculty members and graduate students in a wide variety of research projects.

Three undergraduate majors are offered: a BA in Psychology, a BS in Cognitive Science, and a BS in Psychobiology. While the majors overlap in certain fundamental and basic knowledge bases, they differ considerably in their focus (i.e., the extent to which certain areas of psychology and related disciplines are studied) and in terms of the different student interests and needs they satisfy. For nonmajors, the department offers many courses that provide students with new and valuable insights into the understanding of human behavior, including their own. At the graduate level, the department offers training leading to the PhD degree with emphases in the areas of behavioral neuroscience, clinical, cognitive, cognitive neuroscience, computational cognition, developmental, health, learning and behavior, social, and quantitative psychology. The graduate program is designed to prepare future psychologists for careers as scientific investigators, college and university teachers, and clinical scientists.

The Cognitive Science major is a designated capstone major. Students are required to produce a paper based on each term of their experience in a research laboratory or approved fieldwork site. Through completion of the capstone experience students are expected to identify a research topic and hypothesis to be tested or a fieldwork project and goals, show that they can organize and integrate information related to the topic or project in a clear manner in their own words, demonstrate ability to find and utilize supporting literature relevant to their project or topic, and successfully relate the paper to their experience in the laboratory or fieldwork setting.

### Psychology BA

The Psychology major is the most general of the three majors and offers both broad and in-depth coverage of the fundamental and traditional areas of psychology. It provides students with a strong foundation for postgraduate education in psychology and can serve as excellent background to prepare them for further training in such fields as law, education, government and public policy, business, and many of the health-related professions. Its basic liberal-arts orientation also provides students with an excellent foundation for immediate postbaccalaureate careers in many areas, particularly ones in which an understanding of human behavior and its diversity of expression would be an asset.

The requirements described below represent the minimum requirements in satisfaction of the preparation and the major. Additional courses in psychology, statistics, and related sciences, as well as other types of research and fieldwork experiences, are highly recommended if students plan to pursue graduate work in psychology and related fields. Under special circumstances, graduate-level courses can be taken by undergraduate students, although such courses may not be applied toward degree requirements for the major. For additional information, contact the Undergraduate Advising Office.

### Learning Outcomes

The Psychology major has the following learning outcomes:

- Demonstrated ability to design an experiment in a field of psychology
- Ability to formulate a hypothesis based on knowledge of current literature
- Demonstrated application of principles of control groups and appropriate methodology
- Demonstrated awareness of major research methods in chosen area of psychology
- Demonstrated ability to apply appropriate statistical methods in analyzing data
- Demonstrated ability to write up results of an experiment
- Ability to relate finding to current literature and interpret them in this context
- Ability to discuss results in front of a group of other students
- Ability to verbally communicate ideas motivating experiments
- Ability to clarify experiment to those not familiar with the methods and answer questions

### Premajor

Students need to file a petition in the Undergraduate Advising Office to declare the Psychology premajor. Psychology premajors can petition to declare the Psychology major once they have (1) satisfied all the preparation for the major requirements and (2) are accepted into the major through a competitive application process (for students who entered UCLA as freshmen) or file a petition to declare the Psychology major (for students who entered UCLA as transfer students).

### Preparation for the Major

Each of the following required courses must be taken for a letter grade (C or better in Psychology 10, 100A, and 100B, C– or better in the remaining courses): Life Sciences 1 or 7A or 15 or Physiological Science 3; Chemistry and Biochemistry 14A or 17 or 20A or Physics 1A or 5A or 10 or 11; one course from Mathematics 2, Program in Computing 10A, Statistics 10, or one term of calculus; one course from Philosophy 1, 2, 3, 4, 5, 6, 7, 8, 9, 21, 22, 22W, 23, 31; Psychology 10, 100A, 100B. Students cannot take Psychology 100B until they have passed course 100A with a grade of C or better. Psychology 100A and 100B are only open to students who have declared the Psychology premajor before the term in which they plan to enroll. It is recommended that students with no background in introductory statistics take Statistics 10 before enrolling in course 100A.

Students who repeat more than two preparation courses or any preparation course more than once are denied admission to the major.

### Freshman Students

Students may declare the Psychology premajor once they have established a 2.5 grade-point average in at least one preparation for the major course. Students must petition to declare the Psychology major and can do so once they complete all seven
preparation for the major courses and submit an application to enter the major by the end of the fall quarter of the third year at UCLA. Admission into the major is based on student academic performance in the preparation courses. Students who have a grade-point average of 2.9 or higher in the preparation coursework and have met all other Psychology premajor requirements are guaranteed entry into the major after they submit the application by the due date. Students with a grade-point average between 2.5 and 2.89 in the preparation coursework enter a competitive application pool and are admitted only if there is space available in the major. Students with a grade-point average below 2.5 in the preparation coursework are not eligible to apply for admission to the major.

Transfer Students
Transfer applicants to the Psychology major with 90 or more units must complete the following introductory courses prior to admission to UCLA: one biology course equivalent to Life Sciences 1 or 7A or 15 or Physiological Science 3, one general chemistry or general physics course, one philosophy course, one introduction to psychology course, and one course from statistics (recommended), finite mathematics, calculus, computer science theory, or computer programming in C++.

Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

After satisfying the preparation for the major requirements, students need to petition to enter the major at the Undergraduate Advising Office.

The Major
Required: (1) Five core courses, with at least two from each category and a fifth course from either category: (a) Psychology 110, 115 (or M117A, M117B, and M117C), 120A, 120B, and (b) 127A or 127B or 127C, 130 (or one course from 133A through 133 or 161), 135, 150; (2) one laboratory/fieldwork course from 101, 111, 116, 121, 136A, 136B, 151, 16A through 186D; (3) four additional upper-division elective courses (16 units) in psychology.

Students who complete Psychology M117A, M117B, M117C receive equivalent credit for course 115 and two upper-division psychology electives. All three courses must be completed to receive psychology elective credit.

Each upper-division course must be taken for a letter grade. A C- or better is required in each core course and in at least one laboratory/fieldwork course. Students must have a 2.0 grade-point average in all upper-division courses selected to satisfy major requirements.

Cognitive Science BS
Capstone Major
The Cognitive Science major focuses on the study of intelligent systems, both real and artificial. While including a strong foundation in the traditional areas of psychology, the major is interdisciplinary in nature and emphasizes subject matter within cognitive psychology, computer science, mathematics, and related disciplines.

The requirements described below include sufficient preparation if students plan to pursue graduate work in cognitive science or related fields; however, they may want to include additional advanced courses in psychology and fields related to cognitive science (e.g., computer science, linguistics, mathematics, philosophy, and statistics) as well as other types of research and fieldwork experiences.

Learning Outcomes
The Cognitive Science major has the following learning outcomes:

- Ability to identify a research topic and hypothesis to test, or a fieldwork project and goals
- Demonstrated organization and integration, in a clear manner and in the student's own words, of information related to a topic or project
- Demonstrated ability to find and utilize supporting literature relevant to a project or topic
- Successful relation of the paper to the student's laboratory or fieldwork experience
- Ability to discuss results in front of a peer group: verbally communicate ideas motivating the experiment, make the experiment clear to those not familiar with the methods, and answer questions

Premajor
Students need to file a petition in the Undergraduate Advising Office to declare the Cognitive Science premajor. They are then identified as Cognitive Science premajors until they (1) satisfy the preparation for the major requirements and (2) file a petition to declare the Cognitive Science major.

Preparation for the Major
Each of the following required courses must be taken for a letter grade (C or better in each course and a 2.5 overall grade-point average in the preparation courses) by the end of the summer quarter of the third year to be eligible to petition to declare the Cognitive Science major: Life Sciences 1 or 7A or 15 or Physiological Science 3; Chemistry and Biochemistry 14A or 17 or 20A or Linguistics 1 or 20 or Physics 1A or 5A or 10 or 11; Mathematics 3A, 3B, and 3C, or 31A or 31AL and 31B; Philosophy 7 or 8 or 9 or 23 or 31; Program in Computing 10A and two courses from 10B, 10C, 15, 16A, 20A, 30, 40A, 60, Psychology 20A, 20B, and Psychology 10, 85, 100A, 100B. Students cannot take Psychology 100B until they have passed course 100A with a grade of C or better. Psychology 100A and 100B should be taken early in the career; these courses are open only to students who have declared the Cognitive Science premajor before the term in which they plan to enroll. Students with no background in introductory statistics should take Statistics 10 before enrolling in course 100A.

Students who repeat more than two preparation courses or any preparation course more than once are denied admission to the major.

Transfer Students
Transfer applicants to the Cognitive Science major with 90 or more units must complete the following introductory courses prior to admission to UCLA: one biology course, one general chemistry or general physics course, two calculus/analytical geometry courses, one general physics course, one philosophy course, one introduction to psychology course, one introduction to cognitive science course, one psychological statistics course, one psychology research methods course, one computer programming course in C++, and one other computer programming course.

Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

The Major
After satisfying the preparation for the major requirements, students need to petition to enter the major at the Undergraduate Advising Office.

Required: (1) Psychology 115 (or M117A, M117B, and M117C), 120A or 120B, and one course from 124A through 124K; (2) one course from 111, 116, 121, 186A through 186D, Computer Science 161; (3) four upper-division elective courses (16 units) from Psychology 110, 111, 112A through 116, 118 through M199X, 120A, 120B, 121, 124A through 124K (if taken for the major, may not be applied as an elective), 130, 133B, 133E, 135, 137G, 142H, 161, 166, 166A through 186D, 191CH (if content is approved by the Undergraduate Advising Office and course has not been applied toward the Psychology 195B or 196B requirement), Anthropology 124Q, 136A, M150, Communication 118, 119, 126, M127, 129, Computer Science 111 through CM186, Linguistics 103 through 185B, Mathematics 110A through 171, Music Industry M103, Neuroscience 102, M145, C177, 180, 181, 182, Philosophy 124 through 137, Statistics 100A, 100B, 100C, 101B, 101C, and (4) in the junior or senior year, two capstone terms of Psychology 195B or 196B (may be fulfilled by taking any two courses from 195B or 196B/194C, provided content is approved by the Undergraduate Advising Office).

Students who complete Psychology M117A, M117B, M117C receive equivalent credit for course 115 and two upper-division cognitive science electives. All three courses must be completed to receive cognitive science elective credit.

Students must have a 2.0 grade-point average in all upper-division courses selected to satisfy major requirements. With the exception of Psychology 195B and 196B, each course must be taken for a letter grade.

Psychobiology BS
The Psychobiology major is designed for students who plan to go on to postgraduate work in physiological psychology, neuroscience, behavioral aspects of biology, or the health sciences. Psychobiology is the study of behavior from a biological perspective. It includes neural, experimental psychological, natural history, genetic, comparative/evolutionary, and developmental approaches to understanding human and animal behavior.

The requirements described below include sufficient preparation if students plan to pursue graduate work in any of the above fields; however, they may want to include additional advanced courses in
Admissions

The major in Psychobiology at UCLA is designed to (1) provide a coherent, challenging academic program focused on investigating, understanding, and supporting the development of young children and their families, (2) teach undergraduate students who complete Psychology M117A, M117B, M117C receive equivalent credit for course 115 and 10 units of upper-division psychobiology electives. All three courses must be completed to receive psychobiology elective credit.

Students must have a 2.0 grade-point average in all upper-division courses selected to satisfy major requirements, and each must be taken for a letter grade.

Honors

Honors Courses

Each year the department offers a selection of honors courses, designated with an H suffix. The courses provide close contact with faculty members, emphasize readings in the original literature, student reports, and small group discussions, and may include field or research experience. Contact the College of Letters and Science for information on requirements for College Honors.

Honors Program

Psychology, Cognitive Science, and Psychobiology majors intending to continue study at the graduate level are encouraged to apply for the departmental honors program. Students work for one year (fall through spring quarters) with a Psychology Department faculty sponsor on a research project that is the basis of a formal honors thesis. During that year they also participate in a weekly seminar (Psychology 191AH, 191BH, 191CH) in which thesis projects are presented and discussed and other topics of interest are explored with invited faculty members and other guests. Other requirements may apply. Contact the Undergraduate Advising Office during spring quarter for more information and application forms. Satisfactory completion of the program and other requirements for the major leads to awarding of the degree with honors or highest honors.

Computing Specialization

Majors in Psychology, Psychobiology, and Cognitive Science may select a specialization in Computing by (1) satisfying all the requirements for a bachelor’s degree in the specified major, (2) completing four courses from Program in Computing 10A, 10B, 10C, 15, 16A, 20A, 30, 40A, 60, Psychology 20A, 20B, and (3) completing at least two courses from Psychology 85, 121, 142H, 186A through 186D (one 199 course may be substituted for one of these courses provided project has been approved by vice chair). A grade of C or better is required in each course. Students graduate with a bachelor’s degree in their major and a specialization in Computing. Students planning to enter this specialization should contact the Undergraduate Advising Office.

Applied Developmental Psychology Minor

The Applied Developmental Psychology (ADP) minor is designed to (1) provide a coherent, challenging academic program focused on investigating, understanding, and supporting the development of young children and their families, (2) teach under-

Learning Outcomes

The Psychobiology major has the following learning outcomes:

- Demonstrated ability to use working knowledge of the nervous system to deduce the consequence of nervous system dysfunctions
- Demonstrated understanding of molecular events at a cellular level by describing the physiological consequences of such events in qualitative and quantitative terms
- Demonstrated ability to utilize knowledge of sensory systems by describing their processes in both quantitative and phenomenological terms
- Demonstrated ability to choose and apply the appropriate quantitative analysis tools to a data set and meaningfully interpret the results of the analysis
- Demonstrated ability to read primary literature in the field and evaluate the validity of conclusions in light of the methodology and statistical analyses used as well as the logic of assertions presented
- Demonstrated ability to communicate the results of laboratory work orally or in writing with appropriate graphic depictions of the data
- Ability to relate work in literature in meaningful ways, explaining the motivation for the study and the interpretation of the results
- Demonstrated thorough knowledge of neuroanatomy, including lobes of the brain, major anatomical landmarks, cranial nerves, and major subcortical structures
- Demonstrated thorough knowledge of the sequence of events that results in an action
- Demonstrated thorough knowledge of sensory systems, including signal transmission, neuroanatomical connections, and response properties of neurons in primary cortical areas
- Ability to analyze the behavior of neurons in circuits and predict how other neurons in the circuit will react when other neurons are depolarized or hyperpolarized

Premajor

Students need to file a petition in the Undergraduate Advising Office to declare the Psychobiology premajor. They are then identified as Psychobiology premajors until they (1) satisfy the preparation for the major requirements and (2) file a petition to declare the Psychobiology major.

Preparation for the Major

Life Sciences Core Curriculum

Required: Chemistry and Biochemistry 14A, 14B, 14BL, 14C, and 14D, or 20A, 20B, 20L, 30A, 30AL, and 30B; Life Sciences 30A, 30B, and 40 or Statistics 13, or Mathematics 3A, 3B, and SC, or MATH 31A, 31B, and 32A; Physics 1A, 1B, 1C, 4AL, and 4BL, or 5A, 5B, and SC.

Students must also complete one of two life sciences sequences—either Life Sciences 1, 2, 3, 4, and 23L, or 7A, 7B, 7C, and 23L. They may not substitute courses in either sequence. Also required are Psychology 10, 100A, 100B. Students cannot take Psychology 100B until they have passed course 100A with a grade of C or better. Psychology 100A and 100B should be taken early in the career; these courses are open only to students who have declared the Psychobiology premajor before the term in which they plan to enroll. Students with no background in introductory statistics should take Statistics 10 before enrolling in course 100A.

Each of the preparation for the major courses must be taken for a letter grade (C or better in Psychology 10, 100A, and 100B, C- or better in the remaining courses) with a 2.0 overall grade-point average. Student must complete all preparation for the major courses by the end of the summer quarter of their third year to be eligible to petition to declare the Psychobiology major.

Students who repeat more than two preparation courses or any preparation course more than once are denied admission to the major.

Transfer Students

Transfer applicants to the Psychobiology major with 90 or more units must complete the following introductory courses prior to admission to UCLA: one year of general biology with laboratory for majors, preferably equivalent to Life Sciences 1 and 2, or 7A, 7B, and 7C, one year of calculus, one year of general chemistry with laboratory for majors, one semester of organic chemistry with laboratory, one introduction to psychology course, one psychological statistics course, and one psychology research methods course. A second semester of organic chemistry or one year of calculus-based physics is strongly recommended but not required for admission.

Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

The Major

After satisfying the preparation for the major requirements, students need to petition to enter the major at the Undergraduate Advising Office. Required: (1) Ecology and Evolutionary Biology 100 or 129 or Psychology 118, and Psychology 110, 115 (or M117A, M117B, and M117C), 116 or Neuroscience 101L, 120A or 120B; (2) one course from Psychology 127A, 127B, 127C, 130, 133A through 133I, 135, 150, 161; (3) 16 units of graded elective courses from the following list: Ecology and Evolutionary Biology 112, 113A, 114A (no more than one from this group), Psychology 111, 112A through 112D, M117A, M117B, M117C, 119A through 119P, 124K, 137G, 151, 152, 153A, 153L, Computational and Systems Biology M187, Ecology and Evolutionary Biology 100, 102, 105, 106, 110, 111, 115, 117, 119A, 120, 121, 122, 124A (only 4 units may be applied toward the major), 129, 133, 164, 170, Life Sciences 107, Microbiology, Immunology, and Molecular Genetics C185A, Molecular Cell, and Developmental Biology 100, 104AL, 138, M140, CM156, Neuroscience 102, Physiological Sciences C144, 145, 147, 166, 173.

Students who complete Psychology M117A, M117B, M117C receive equivalent credit for course 115 and 10 units of upper-division psychobiology electives. All three courses must be completed to receive psychobiology elective credit.

Students must have a 2.0 grade-point average in all upper-division courses selected to satisfy major requirements, and each must be taken for a letter grade.

Honors

Honors Courses

Each year the department offers a selection of honors courses, designated with an H suffix. The courses provide close contact with faculty members, emphasize readings in the original literature, student reports, and small group discussions, and may include field or research experience. Contact the College of Letters and Science for information on requirements for College Honors.

Honors Program

Psychology, Cognitive Science, and Psychobiology majors intending to continue study at the graduate level are encouraged to apply for the departmental honors program. Students work for one year (fall through spring quarters) with a Psychology Department faculty sponsor on a research project that is the basis of a formal honors thesis. During that year they also participate in a weekly seminar (Psychology 191AH, 191BH, 191CH) in which thesis projects are presented and discussed and other topics of interest are explored with invited faculty members and other guests. Other requirements may apply. Contact the Undergraduate Advising Office during spring quarter for more information and application forms. Satisfactory completion of the program and the other requirements for the major leads to awarding of the degree with honors or highest honors.

Computing Specialization

Majors in Psychology, Psychobiology, and Cognitive Science may select a specialization in Computing by (1) satisfying all the requirements for a bachelor’s degree in the specified major, (2) completing four courses from Program in Computing 10A, 10B, 10C, 15, 16A, 20A, 30, 40A, 60, Psychology 20A, 20B, and (3) completing at least two courses from Psychology 85, 121, 142H, 186A through 186D (one 199 course may be substituted for one of these courses provided project has been approved by vice chair). A grade of C or better is required in each course. Students graduate with a bachelor’s degree in their major and a specialization in Computing. Students planning to enter this specialization should contact the Undergraduate Advising Office.

Applied Developmental Psychology Minor

The Applied Developmental Psychology (ADP) minor is designed to (1) provide a coherent, challenging academic program focused on investigating, understanding, and supporting the development of young children and their families, (2) teach under-
graduate students how to apply theories, research methods, and research findings to practical concerns, and (3) prepare students to join or receive further training in various child-related professions.

The minor is open to all enrolled UCLA students (including Cognitive Science, Psychobiology, and Psychology majors) who have an overall grade-point average of 2.0 or better and have applied and been accepted into the program. Qualified students are admitted into one of two annual cohorts (one beginning in fall, the other in spring) to complete three consecutive terms of specialized coursework alongside a hands-on teaching internship (86 hours per term) at one of several UCLA child care centers. For more information about applying to the minor, contact the ADP academic coordinator by e-mail or see the department website. For questions about additional course requirements for the minor, contact a counselor in the Undergraduate Advising Office, 310-825-2730.

Required Lower-Division Course (4 units): Psychology 10.

Required Upper-Division Courses (24 units): Psychology 134A (must be taken concurrently with course 134D), 134B (must be taken concurrently with course 134E), and four additional courses from Education 120, 132, Psychology 127C, 129F, 131, 132A, 132B, 133B through 133L, 134F, 134G, 134I, 161, 199A or 199B (content must be approved by the Undergraduate Advising Office), Sociology M174. One of the four additional courses must include either Psychology 130 or one course from 133H through 133L.

Internship Requirement/Fieldwork Component (8 units): Psychology 134C, 134D (must be taken concurrently with course 134A), 134E (must be taken concurrently with course 134B). Students work as interns for three consecutive academic terms at one of several UCLA child care centers serving infants, toddlers, and/or preschool-age children. The internship provides hands-on experience working with young children and opportunities to closely observe children and teachers.

No more than two courses may be applied toward both this minor and a student’s major.

A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor.

Each minor course, except for the fieldwork component of the internship courses, must be taken for a letter grade, and students must have an overall grade-point average of 2.0 or better in the minor. Successful completion of the minor is indicated on the transcript and diploma.

Cognitive Science Minor

The Cognitive Science minor is designed to introduce students to cognitive science topics as addressed in a number of different disciplines, such as biology, computer science, engineering, linguistics, mathematics, philosophy, and psychology, while allowing them to pursue a more in-depth study of cognitive science topics within specific areas of their own choice.

The minor consists of two parts. In the first part students complete background courses and satisfy a computer programming experience requirement. In the second part they select courses from three clusters of upper-division courses that have been organized to reflect different aspects of cognitive science. Students take five courses from three clusters, with no more than three courses from any one cluster.

The minor is open to all enrolled UCLA students, other than Cognitive Science majors, who have an overall grade-point average of 2.0 or better. After completing two background courses, students must make an appointment with an adviser in the Psychology Undergraduate Advising Office by e-mail, or by phone at 310-825-2730, to declare the minor. The three background courses must be completed by the end of the summer quarter of the third year.

Required Courses (32 units): Psychology 85; one course from 15, 100B, Linguistics 1, or 20; and either Program in Computing 10A or Psychology 20A.

Students must complete five total courses from the following three clusters, with no more than three courses from any particular cluster: (1) biological basis of cognition cluster—Linguistics C135, Music Industry M103, Neuroscience 102, M145, C177, 180, 181, 182, Psychology 110, 115, 116, M117C (or Molecular, Cell, and Developmental Biology M175C or Neuroscience M101C, Physiology C101C); (2) human cognition cluster—Anthropology 124Q, 136A, Communication 129, Psychology 120A, 120B, 121, 124A through 124K, 133B, 133E, 186A through 186D; (3) mind and language cluster—Anthropology M150, Communication 118, 119, 126, Linguistics 120A, 120B, 120C, 130, 132, C135, 185A, Philosophy 124, 125, 126, C127A, C127B, 129, 130, 170, 172, Psychology 124A.

No more than two courses may be applied toward both this minor and a student’s major.

A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor.

Each minor course must be taken for a letter grade, and students must have an overall grade-point average of 2.0 or better in the minor. Successful completion of the minor is indicated on the transcript and diploma.

Fieldwork and Research Opportunities

Many research and fieldwork opportunities are open to students who wish to expand their knowledge and broaden their background in the field of psychology. These experiences can be enriching and help bring undergraduate students closer to understanding the importance of research and internships, including their applications in the everyday world. At least one of the following courses is recommended for students planning postgraduate study: Psychology 79, 85, 182, 194A through 194D, 195A, 195B, 196A, 196B, 199A, or 199B. Only 12 units from any combination of courses 185, 192, 194, 195, and 196 may be applied toward the undergraduate degree. Information about these courses and programs is available from the Undergraduate Advising Office.

Only one 4-unit 199 course may be taken per term, and only 16 units of course 199 may be applied toward the degree. Only one 199 course may be taken for a letter grade (additional 199 courses may be taken on a P/NP basis). If approved in advance by the Undergraduate Advising Office, 8 units of course 199 may be applied toward the Psychology 195B/196B requirement for the Cognitive Science major and 4 units of course 199B may be applied toward the elective course requirements for the Psychology major.

Psychology Research Opportunity Programs

The Psychology Research Opportunity Programs (PROPS) represent a vital effort to identify and mentor underrepresented minority and/or low-income students. The purpose of PROPS is to encourage such students to participate in research and pursue graduate studies leading to careers in academia. The recruitment and application process for PROPS takes place each fall quarter. Students selected to participate are awarded stipends for winter and spring quarters, during which time they do research under the mentorship of a psychology faculty member. In addition, students are required to attend weekly seminars covering topics such as graduate school, careers in academia, and research opportunities in various fields of psychology. Prior research experience is not required. This is an excellent opportunity for students to begin their research careers and acquire the needed experience to pursue advanced studies.

Infant Development Program

The Megan E. Daly Infant Development Program (IDP), established in May 1983, is located at the Ferndale Center at 320 N. Charles E. Young Drive and has two primary functions: (1) to offer quality group care for infants and toddlers of the students, staff, and faculty of the Psychology Department and other UCLA departments, and (2) to serve as a teaching and research facility for the Psychology Department and the UCLA community. The program’s two classrooms each serve children from three months to three years old and accommodate both cross-sectional and longitudinal investigation of infants, toddlers, their families, and caregivers. In addition, the program serves as a primary internship site for students in the Applied Developmental Psychology (ADP) minor, enabling ADP students to acquire firsthand experience observing and caring for infants and toddlers in a professional group setting.

UCLA Psychology Clinic

The UCLA Psychology Clinic in the Department of Psychology is a major training center for students in the clinical psychology PhD program, one of the top-ranked programs in the country. It provides a broad range of psychological services to children and adults, including assessment and individual, couples, family, and group therapy. Clients cover the entire age range and represent diverse populations in the community. Student therapists receive very close supervision and utilize research-based cutting-edge psychological interventions. Students and faculty members
are also involved in a variety of research projects through the clinic.

Graduate Study

Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Division website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Graduate Degrees

The Department of Psychology offers Master of Arts (MA), Candidate in Philosophy (CPhil), and Doctor of Philosophy (PhD) degrees in Psychology.

Psychology

Lower-Division Courses

10. Introductory Psychology. (4) Lecture, four hours. General introduction including topics in cognitive, experimental, personality, developmental, social, and clinical psychology; six hours of psychological research and a grade of C or better required of all departmental premajors. P/NP or letter grading.

15. Introductory Psychobiology. (4) Lecture, three hours. Designed for nonmajors. Survey of genetic, evolutionary, physiological, pharmacological, and experiential factors affecting behavior. Using comparative approach where appropriate, emphasis on relevance of humans and their environment. Use of current technologies (e.g., Web-based teaching, interactive computer demonstrations) in enriched environment. Use of current technologies (e.g., Web-based teaching, interactive computer demonstrations) in challenging atmosphere to learn how mind works. P/NP or letter grading.

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

20A. MATLAB Programming for Behavioral Sciences. (4) Lecture, two hours; laboratory, one hour. Prior programming experience not required. Introduction to MATLAB and programming methods useful in experimental psychology. Reading and writing of code for conducting experiments, analyzing data, and modeling. P/NP or letter grading.

20B. Advanced Topics in MATLAB Programming for Behavioral Sciences. (4) Laboratory, one hour. Requisite: course 20A. Introduction of advanced topics in MATLAB programming for behavioral sciences, including Psychtoolbox, advanced MATLAB graphics and input/output, simulations and modeling, and efficient MATLAB coding. Active programming during class and for homework required. P/NP or letter grading.

30. Web Programming for Psychology. (4) Lecture, one hour; laboratory, three hours. Introduction to core topics of the Web, with focus on applications that collect and analyze data. Server side programming includes Perl and MYSQL databases. Client side programming includes HTML and Javascript. P/NP or letter grading.

80. Introduction to Cognitive Science. (4) Lecture, three hours. Exploration of computer metaphor of mind as an information-processing system, focusing especially on perception, knowledge representation, and thought based on research in cognitive psychology, neuropsychology, and artificial intelligence. Many examples from visual information processing.

88A. Lower-Division Seminar: Stress, Adaptation, and Coping. (4) Seminar, three hours. Enforced requisite: course 10. Designed for students with credit for course M101A (or Molecular, Cell, and Developmental Biology M175A or Neuroscience M101A or Psychological Science M180A). Designed for juniors/seniors. Nervous system anatomy, physiology, pharmacology, and their relationship to behavior. P/NP or letter grading.

Upper-Division Courses


100B. Research Methods in Psychology. (4) Lecture, two hours; laboratory, four hours. Enforced requisites: courses 10 and 100A, 100B, with grades of C or better. Introduction to research methods and critical analysis in psychology. Lecture and laboratory topics include experimental and nonexperimental research methods, statistical design and analysis as applied to a broad range of basic and applied research issues. P/NP or letter grading.

101. General Psychology Laboratory. (4) Lecture, one hour; laboratory, three hours. Requisites: courses 10, 100A, 100B. General laboratory course for psychology students to acquire key concepts in psychology through active participation in enriched environment. Use of current technologies (e.g., Web-based teaching, interactive computer demonstrations) in challenging atmosphere to learn how mind works. P/NP or letter grading.


110. Fundamentals of Learning. (4) Lecture, three hours; discussion, one hour. Requisites: courses 10, 100A, 100B, 107. Designed for seniors. Experimental findings on animal and human conditioning; retention and transfer of training; relation of learning and motivation. Intended to provide empirical basis for theory and research in this area. P/NP or letter grading.

111. Learning Laboratory. (4) Lecture, two hours; laboratory, three hours. Requisites: courses 10, 100A, 100B, 110. Designed for departmental majors. Laboratory evaluation of learning and study of learning, especially with animals. Letter grading.

112A. Basic Processes of Motivated Behavior. (4) Lecture, nine hours; discussion, nine hours. Requisites: courses 10, 100A, 110. Designed for seniors. Examination of some basic processes underlying motivated behavior, stressing environmental determinants of behaviors such as food, drugs, and reproduction-related behavior. Discussion of physiological mechanisms that contribute to such behaviors. Consideration of topics such as reinforcement, acquisition, and extinction, and how they affect behaviors. Emphasis on areas in which significant research advances have recently occurred. Examination of concordance and discordance between results from laboratory and applied research. P/NP or letter grading.

112B. Psychobiology of Fear and Anxiety. (4) Lecture, three hours. Requisites: courses 100A, 110. Recommended: course 115. Designed for seniors. Presentation of biological and behavioral approaches to fear and anxiety, taken from laboratory and applied research. Introduction of major principles from each approach, emphasis on areas in which significant research advances have recently occurred. Examination of concordance and discordance between results from laboratory and applied research. P/NP or letter grading.

112C. Psychobiology of Anxiety and Depression. (4) Lecture, two and one half hours; discussion, 30 minutes. Requisites: courses 110 and 115, or Neuroscience M101A, M101B, and M101C. Limitation to juniors/seniors. Presentation of biological and behavioral approaches to anxiety and depression, taken from laboratory and applied research. In addition to others, major paradigms in major principles from each approach, emphasis on areas in which significant research advances have recently occurred. Examination of concordance and discordance between results from laboratory and applied research. P/NP or letter grading.

112D. Animal Cognition. (4) Lecture, nine hours; discussion, 90 minutes. Requisites: courses 10, 100A, 110. Designed for seniors. Investigation of scientific study of cognition and behavior in animals. Topics include perception, attention, working and reference memory, spatial cognition, timing and counting, concept formation, and abstract reasoning. Most discussions focus on laboratory findings with animals, as viewed from evolutionary framework concerned with natural histories of animals. P/NP or letter grading.


115. Principles of Behavioral Neuroscience. (4) Lecture, three hours; discussion, 90 minutes. Requisites: course 100A, Life Sciences 2 or 7A or 15. Not open to students with credit for course M117A (or Molecular, Cell, and Developmental Biology M175A or Neuroscience M101A or Psychological Science M180A). Designed for seniors. Nervous system anatomy, physiology, pharmacology, and their relationship to behavior. P/NP or letter grading.

116. Behavioral Neuroimaging Laboratory. (4) Lecture, one hour; laboratory, three hours. Requisites: courses 10, 100A, 100B, 115. Designed for psychobiology and psychology majors. Laboratory experience with various topics in behavioral neuroscience. P/NP or letter grading.


M117A. Cellular and Systems Neurobiology. (5) Lecture, four hours; discussion, 90 minutes. Requisites: Chemistry 14C or 14C/14C (taken concurrently), Life Sciences 2 or 7C, Physics 1B or 1BH or 5C or 6B. Not open for credit to students with credit for Psychology 111A. For Neuroscience and Psychological Science majors, grade of C or better is required to proceed to Neuroscience M101B or Physi-
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ological science 111B. Cellular neurophysiology, membrane potential, action potentials, and synaptic transmission. Sensory systems and motor system; how assemblies of neurons process complex information and control movement. P/NP or letter grading.

M117B. Molecular and Developmental Neuroscience. (3) Laboratory, four hours; discussion, 90 minutes. Requisites: courses 115 or M117A (or Molecular, Cell, and Developmental Biology M115A or Neuroscience M101A or Psychological Science M180A; Neuroscience majors must have grade of C– or better) or Physiology and Behavioral Neuroscience 111A, 111B, and 111C. Limited to juniors/seniors. Introduction to classical and current experiments that define behaviors that comprise the human memory system. Discussion of scientific methods available for studying these phenomena. Exploration of student experiences of world and themselves within and demonstrations of how alterations in brain functioning due to injury, psychoactive drugs, and dreaming result in alterations in these phenomena. P/NP or letter grading.

M119L. Human Neuropsychology. (4) (Same as Neuroscience M119L.) Lecture, three hours. Recommended requisites: courses 115 (or M117A and M117C), 120A or 120B. Designed for juniors/seniors. Laboratory experience with methods of neuropsychology given by visiting speakers, with additional lectures by instructor on relevant background material. Reading of published scientific articles. P/NP or letter grading.

M119Q. Psychology of Aging. (4) (Same as Gerontology M119Q.) Course, three hours. Designed for juniors/seniors. Aging refers to developmental changes occurring at end stages of life. Some alterations that occur represent improvement, others are detrimental. Examination of impact of aging process on mental phenomena and exploration of which positive changes can be maximally utilized and which detrimental. Examination of impact of aging process and its terminal phase, death, have been increasingly studied in recent years. Establishment of what is known about biology and behavioral neuroscience of aging and evaluation of theories developed to account for this knowledge. P/NP or letter grading.


M120A. Cognitive Psychology. (4) Lecture, three hours; discussion, one hour. Requisites: courses 10, 100A, 100B, 120A or 120B. Designed for juniors/seniors. Survey of cognitive psychology: how people acquire, represent, transform, and use verbal and nonverbal information. Perception, attention, imagery, memory, representation of knowledge, language, action, decision making, thinking, P/NP or letter grading.

M120B. Sensation and Perception. (4) Lecture, three hours; discussion, one hour. Requisite: courses 10, 100A, 100B. Designed for juniors/seniors. Acquisition of information about physical world through basic sensory mechanisms and perceptual processes. Perception of colors, surfaces, space, and events. Connections between information, computations, and biological mechanisms in vision, audition, and other systems. P/NP or letter grading.


M124C. Human Memory. (4) Lecture, two hours; discussion, one hour. Requisite: course 120A or 120B. Designed for juniors/seniors. Towards an empirical understanding of the impact of sleep deprivation, sleep in psychiatric disorders, brain anatomical and neurochemical control of sleep, development and aging of sleep, circadian control of sleep, sleep and dreams. P/NP or letter grading.

M124D. Consciousness: Current Debates. (4) Seminar, three hours. Requisites: courses 100B, 115. Designed for juniors/seniors. Review of current issues in research on cognitive neuroscience of consciousness, with focus on modern theories of conscious perception, especially in visual modality so as to reflect its role in consciousness in consciousness research. P/NP or letter grading.

M124F. Thinking. (4) Lecture, three hours. Requisite: course 120A or 120B. Analysis of experimental studies of human categorization, reasoning, decision making, problem solving, creativity, and related topics. P/NP or letter grading.

M124G. Cognition and Successful Aging. (4) Lecture, three hours. Requisite: course 120A or 120B. Discussion of cognitive, social, and emotional changes that happen with age, how people live and learn, focus on what is important, achieve balance, and get better with age. Topics include happiness, memory, brain training, use of emerging technology, wisdom, humor, human and nonhuman communication, and what constitutes successful aging. P/NP or letter grading.
124J. Perception, Learning, and Learning Technology. (4) Seminar, three hours. Requisite: course 120A or 120B. Aspects of perception and cognition as they relate to learning and potential for learning technology. Basic knowledge about visual information processing, perceptual learning, knowledge representation, pattern recognition, attention, memory, and expertise, as well as research on learning, technology, and applications of perceptual and cognitive concepts in specific domains with special focus on teaching and learning in mathematics. P/NP or letter grading.

124K. Ethical, Legal, and Societal Implications of Cognitive Neuroscience. (4) Lecture, three hours. Requisite: course 120A or 120B. Designed for juniors, seniors, and graduate students. Current and current and historical use of neuroimaging in legal systems as means to assess memories, truthfulness, culpability, and probability of future dangerousness. Consideration of soci- onal and societal consequences of use of cognitively enhancing drugs, memory dampening techniques, brain stimulation, and neural protheses. Students de-bate range of current topics. P/NP or letter grading.

125. Clinical Psychology Laboratory. (4) Labora- tory, four hours. Requisites: courses 10, 100A, 100B, and 127A or 127B or 127C. Designed for departmental majors. Methods, designs, and issues in conduct of research. Students plan, de- velop, and conduct research. Content varies by in- structor, with concentration on one of following: schizophrenia, mood disorders, anxiety disorders, childhood disorders, psychophysiological methods, observational methods with couples and families. P/ NP or letter grading.

127A. Abnormal Psychology. (4) Lecture, three hours; discussion, one hour. Requisite: course 10. Not open for credit with credit for course 127B or 127C. Study of psychological disorders (e.g., de- pression, anxiety, substance use disorders, schizo- phrenia) across lifespan, including role of biological, behavioral, psychological, and cultural factors, di- agnosis and treatment approaches. Discussion of Stigma and practices that support inclusiveness. P/ NP or letter grading.

127B. Abnormal Psychology: Biological Bases. (4) Lecture, three hours; discussion, one hour. Requisite: course 10. Not open for credit with credit for course 127A or 127C. Study of psychological disorders (e.g., de- pression, anxiety, substance use disorders, schizo- phrenia) across lifespan, including role of biological, behavioral, psychological, and cultural factors, di- agnosis and treatment approaches. Discussion of Stigma and practices that support inclusiveness. P/ NP or letter grading.

127C. Abnormal Psychology: Developmental Perspectives. (4) Lecture, three hours; discussion, one hour. Prerequisites: course 10. Not open for credit to stu- dents with credit for course 127A or 127B. Study of abnormal child development from infancy through ad- olescence and early adulthood. Clinical disorders in- clude behavioral disorders, depression/anxiety, al- cohoh substance disorders, eating disorders, and au- tim spectrum disorder. P/NP or letter grading.

129. Culture and Human Development. (4) Lecture, three hours; discussion, one hour. Requisites: courses 10, 100A. Role of culture in human develop- ment through psychology, anthropology, and autobi- ography. Students relate material from lectures and readings to concrete examples, to di- verse cultural backgrounds in class, at UCLA, and in the broader community. P/NP or letter grading.

133. Applied Developmental Psychology. (4) Lec- ture, three hours. Requisites: courses 10, 100A. Appli- cation of developmental psychology to issues pertain- ing to improving well-being of children and their families. Topics include quality of child care, patterns and ranges of normal child behaviors, developmental disorders, safety/health, and child care policy issues, child-rearing practices. P/NP or letter grading.

134A. Applied Developmental Psychology: Infant/ Toddler Care and Education. (4) Lecture, three hours. Designed for Applied Developmental Psy- chology minors. Coverage of children zero to three years old. Topics include physical, cognitive, social, and emotional development of children, developmen- tally appropriate practices, child care quality, role of educator/caregiver, and other related issues. Letter grading.

134B. Applied Developmental Psychology: Pre- school/School-Age Care and Education. (4) Lec- ture, three hours. Designed for Applied Developmental Psychology minors. Coverage of children three to eight years old. Topics include physical, cognitive, so- cial, and emotional development of children, develop- mentally appropriate practices, child care quality, role of educator/caregiver, and other related issues. Letter grading.


134F. Infant Care and Development. (4) Lecture, three hours. Requisites: course 10, one course from 130 or 133B through 133I, one statistics course. In- depth study of research methods, current research findings, and theories used to understand infant de- velopment from conception to first two years of life, including cross-cultural application of this knowl- edge to various populations. P/NP or letter grading.

134G. Early Childhood Curriculum. (4) Lecture, three hours. Requisites: course 10, one course from 130 or 133B through 133I, one statistics course. Ex- perimentation with formulas, materials, and philosophies that enhance development of children in context of childcare settings. Topics include issues of multicultural- ity, antisocial behavior, and special needs adap- tations. P/NP or letter grading.

134H. Child, Family, and Community. (4) Lecture, three hours. Requisites: course 10, one course from 130 or 133B through 133I, one statistics course. Ex- perimentation with role of early childhood workers within context of diverse racial, ethnic, economic, and cul- tural backgrounds and impact of these dynamics on children’s development. P/NP or letter grading.

134J. Dynamic Perspectives on Parenting. (4) Lec- ture, three hours; discussion, one hour. Requisites: course 10, one course from 130 or 133B through 133I, one statistics course. Exploration of parenting and of changes in parent-child relationship from birth through young adulthood. Overview of theories, dis- cussion of transition to parenthood, and examination
of parenting across developmental stages. Examination of how parenting and parent-child relationship is affected by family dynamics and contextual factors. Study of effective child socialization techniques and their theoretical and empirical foundations to meet children's developmental needs; build positive and mutually respectful parent-child relationships; and provide positive guidance to promote self-regulation, competence, and socially responsible behavior. P/NP or letter grading.

135. Social Psychology. (4) Lecture, three hours; discussion, one hour. Requisites: courses 10, 100A. Designed for juniors/seniors. Interrelationships between the individual and social context, and development and change in attitudes and opinions. Psychological analysis of small groups, social stratification, and mass media. P/NP or letter grading.

136A. Social Psychology Laboratory. (4) Laboratory, one hour; laboratory, four hours. Requisites: courses 10, 100A, 100B, 135. Designed for Psychology majors. Introduction to research designs and methods used to test social psychological hypotheses, including designing experiments, observing, content analysis, and/or questionnaires. P/NP or letter grading.

136B. Nonexperimental Methods in Social Psychology. (4) Lecture, four hours; laboratory, two hours. Requisites: courses 100B, 135. Designed for Psychology majors. Research experience with nonexperimental methods for study of social attitudes or behavior, including fieldwork with survey research, naturalistic observation, or questionnaires. P/NP or letter grading.

137B. Nonverbal Communication and Body Language. (4) Same as Communication M113.) Lecture, three hours. Examination of how various forms of nonverbal communication convey meaningful information to perceivers, with focus on both production and perception of multiple communication formats (e.g., affect expression of face and body, gesture, and kinaesthetic, with strong emphasis on body language. Readings from variety of related fields. P/NP or letter grading.

137C. Intimate Relationships. (4) Lecture, three hours. Requisites: courses 10, 100A. Limited to juniors/seniors. Introduction to how social scientists think about, study, and treat intimate relationships, with emphasis on understanding how relationships change over time and across the life span. Emphasis on conflict resolution, social support, sex, role of individual differences, and external circumstances. P/NP or letter grading.

137D. Psychology of Diversity. (4) Lecture, three hours. Requisites: course 10 or Gender Studies 137E. Designed for juniors/seniors. Examination of how culture, socioeconomic class, ethnicity, gender, and other group differences are created, perceived, and maintained. Emphasis on how scientific evidence informs approaches to contemporary problems including management of diverse workforce, immigrant integration, racial tensions, and health/educational disparities. P/NP or letter grading.

137E. Women and Men. (4) Same as Gender Studies M137E.) Lecture, two and one half hours. Requisite: course 10 or Gender Studies 10. Designed for seniors. Examination of work behavior of women and men, gender, and work satisfaction, with a focus on career choice, job findings, leadership, performance evaluation, discrimination and evaluation bias. Job satisfaction, and interdependence of work and family roles. P/NP or letter grading.

137G. Social Cognitive Neuroscience. (4) Lecture, three hours. Principles of social cognitive neuroscience (SCN) and survey of broad array of topics in field. SCN is fundamental merging of social science questions and neuroscientific methods, with a focus on functional magnetic resonance imaging (fMRI). P/NP or letter grading.

137I. Social Influence. (4) Lecture, three hours. Requisite: course 10. Study of theory and research that addresses influence processes from social psychological perspective. Particular attention given to reviewing theory and empirical research on conformity, compliance, and obedience. Covers attitudes and their measurement, factors that make persuasive messages effective in changing attitudes, social influence online, cross-cultural influence, and resisting persuasion and influence attempts. Application of findings from social influence literature to understanding influence processes in various social contexts. P/NP or letter grading.

137J. Self and Identity. (4) Seminar, three hours. Requisite: course 10. Designed for juniors/seniors. Examination of theory and research that addresses the self from social psychological perspective. Topics focus on self-knowledge, self-esteem, the self in memory, illusions about self, self-esteem, implicit (subconscious) self, self-regulation, social comparison, self-relevant emotions, and influence of culture on self. P/NP or letter grading.

137K. Psychology of Emotion. (4) Lecture, three hours. Designed for juniors/senior psychology majors. Broad overview of science of human emotion. Covers topics such as history of emotion research, and dominant models of emotion, purpose of facial expressions, experience of emotions in one's closest social relationships, how we regulate our emotions, whether emotions can make us sick, and what it means to be happy. Exploration of range of perspectives in psychology, ranging from social, cultural, developmental, health, and clinical psychology. Consideration also of cognitive and behavioral neuroscience. P/NP or letter grading.

M138. Electoral Politics: Political Psychology. (4) Same as Political Science M141A.) Lecture, three or four hours; discussion, one hour (when scheduled). Requisite: courses 10 or Gender Studies/seniors. Examination of political behavior, political socialization, personality and politics, racial conflict, and psychological analysis of public opinion on these issues.

M139. Perspectives on Autism and Neurodiversity. (4) Same as Disability Studies M139.) Seminar, three and one half hours. Genealogy of autism as diagnostic category and cultural phenomenon from its historical roots as new, rare, and obscure condition in early 1940s to current status as global epidemic. Examination of material sourced from various fields and disciplines invested in autism, including psychology, neuroscience, arts and humanities, popular media, anthropology, activism, and critical autism studies. Students encounter and analyze multiple perspectives on autism and put them in conversation with one another. Attention paid to way person with autism experiences the world and represents their own experiences of autism and discussion of what ramifications of these multiple framings are in context of autism inclusion strategy and disability policy today. Letter grading.

M140. Introduction to Study of Aging. (4) Same as Social Welfare M140.) Lecture, three hours. Designed for juniors/seniors. Perspectives on major features of human aging—biological, social, psychological, and humanistic. Introduction to information on range of influences on aging to prepare students for subsequent specialization. P/NP or letter grading.

142H. Advanced Statistical Methods in Psychology (Honors). (4) Lecture, three hours; laboratory, two hours. Requisites: courses 100A, 100B. Survey of statistical techniques commonly used in psychology, education, and behavioral and social sciences: correlation and regression, analysis of variance, and multiple re-gression. P/NP or letter grading.


M147A. Psychology of Lesbian Experience. (4) Same as Gender Studies M147A and Lesbian, Gay, Bisexual, Transgender, and Queer Studies M147A.) Lecture, two hours; discussion, one hour. Requisite: course 10 or Gender Studies 10. Lesbian, Gay, Bi- sexual, Transgender, and Queer Studies M114. De- signed for juniors/seniors. Review of research and theory in gender studies and psychology to examine various aspects of lesbian experience, impact of heterosexism/stigma, gender role socialization, minority status of women and lesbians, identity development within a multicultural society, changes in psychological theories about lesbians in sociocultural context. P/NP or letter grading.

M149. Language Development and Socialization. (4) Same as Anthropology M152P.) Lecture, three hours; discussion, one hour (when scheduled). Explor- ing children’s differences through the analysis of struc- tures and practices of language and become compe- tent participants in linguistic and social worlds around them. Development of language and socialization over childhood, across communities of practice, and across different ethnic and socioeconomic groups. Bridges work from anthropology, psychology, linguistics, and cognitive science. Topics include cross-cul- tural perspectives on child development and wide range of methodological approaches. Examination of ways in which language development and socializa- tion interfaces with culture, morality, inequality, educa- tion, and cognition. P/NP or letter grading.

150. Introduction to Health Psychology. (4) Lecture, three hours. Requisite: course 10. Areas of health, illness, treatment, and delivery of treatment that can be elucidated by psychological methods. Particular attention given to biobehavioral factors that influence health and illness, treatment, and delivery of treatment. P/NP or letter grading.


152. Mind-Body Interactions and Health. (4) Lecture, three hours. Designed for juniors/senior Psychology majors. Exploration of bi-directional interactions between mind and body and how these interactions influence physical health. Topics include impact of stress, emotions, personality, social world on biological systems and health. Discussion of mind-body interventions designed to reduce stress and improve health, including scientific re- search on yoga and meditation. P/NP or letter grading.

161. Behavior and Brain Development. (4) Lecture, three hours. Requisites: courses 10, 100A. Limited to juniors/seniors. Exploration of relationship between brain development and behavior. Examination of how cognitive neuroscience can be applied to the development and how developmental approach can advance progress in cognitive and developmental sciences. P/NP or letter grading.

162. Psychology of Addiction. (4) Lecture, three hours; discussion, one hour (when scheduled). Survey of topics covering psychological and neurobiological theories of addiction, pharmacological effects of drugs and abuse, etiology, assessment, diagnosis, and treatment. P/NP or letter grading.

M163. Death, Suicide, and Trauma. (4) Same as Sociology M138.) Lecture, three hours; discussion, one hour. Sociological analysis of incidence of violent death in U.S. and the ways in which these deaths are defined and treated by the medical field. Focus on the third leading cause for young people aged 15 to 24. Both kinds of violent deaths are often dismissed as extreme psychopathology, reflecting individual mental health issues. Sociologists argue that suicide and homicide are social facts. Suicide and homicide do not occur randomly in society but are stratified according to social factors such as age, gender, race, socioeconomic status, and cultural background. P/NP or letter grading.


167A. Psychology of Lesbian Experience. (4) Same as Gender Studies M147A and Lesbian, Gay, Bisexual, Transgender, and Queer Studies M147A.) Lecture, two hours; discussion, one hour. Requisite: course 10 or Gender Studies 10. Lesbian, Gay, Bi- sexual, Transgender, and Queer Studies M114. De- signed for juniors/seniors. Review of research and
164. Puberty and Sleep. (4) Lecture, three hours. Requisite: course 10. Limited to juniors/seniors. Exploration of how normative biological and hormonal changes during adolescence influence adolescent behavior and well-being. Focus specifically on puberty and sleep, which both lead to consequential effects on behavior, health, and brain development. P/NP or letter grading.

M165. Psychology of Gender. (4) Same as Gender Studies M165. Lecture, three hours. Consideration of psychological research relevant to understanding gender differences. Topics include sex-role development and role conflict, physiological and personality differences of men and women, and gender differences in intellectual abilities and achievement, and impact of gender on social interaction. P/NP or letter grading.

M166. Neurobiology of Bias and Discrimination. (4) Same as Neuroscience M167 and Physiological Science M160. Lecture, four hours. Limited to junior/senior neuroscience, physiological science, and psychology students. Exploration of aspects of mammalian brain function that generate preference, bias, and discrimination. Consideration of research at multiple levels of analysis from genetics to neural circuits to behavior. Discussion of societal implications of these research findings and their relevance to public policies and criminal justice system. Letter grading.

167. Digital Media and Human Development. (4) Lecture, three hours. Designed for junior/senior majors. Examination of social science research on media and technology during development to understand positive and negative roles of technology and media in children's lives. Topics include social media, video games, brain development, and learning with technological tools from age 2 through 18 (and beyond). May be repeated for credit. P/NP or letter grading.

M172. Afro-American Woman in U.S. (4) Same as African American Studies M172 and Gender Studies M172. Lecture, four hours. Designed for junior/senior majors. Impact of social, psychological, political, and economic forces which impact on interpersonal relationships of African American women members of large society and as members of their biological and ethnic group. P/NP or letter grading.

M174. Health Disparities. (4) Same as Life Sciences M174. Lecture, three hours. Examination of health disparities in which societal responses to race and ethnicity in combination with variation of other factors create differential quality and access to health care resulting in poor health outcomes in racial/ethnic minority populations. Use of scientific literature for critical thinking about assumptions that shape life sciences, medical research, clinical practice, and social and behavioral sciences as they relate to racial and ethnic minority populations and to teach students to integrate concepts of culture and health disparities into other social, biological, political, psychological, genetic, and clinical health interests. P/NP or letter grading.

175. Community Psychology. (4) Designed for junior/senior Psychology majors. Application of psychological principles to understanding and solution of community problems. Topics include community development, community mental health problems, drugs, racism, and discrimination as applied to prisoners. P/NP grading.

M175SL. Addressing Social Determinants in Racial/Ethnic Minority Communities to Reduce and Prevent Health Disparities. (4) Same as Community Engagement and Social Change M175SL. Seminar, two hours; fieldwork, 10 hours. Examination of how addressing social determinants in racial/ethnic minority communities can reduce or eliminate physical and mental health disparities. Current emphasis on racial and ethnic minority communities, health status of individuals can be function of built environment, exposure to pollutants and toxins, scarcity of supermarkets or stores, low access to healthy food and nutritional food, noise levels, and variety of other stressors and unhealthy conditions. Health interventions are often focused on individual-level change or increase in access to health care with in hopes of changing risk environments. Designed to identify and provide opportunities to understand how to address social determinants related to negative health outcomes in racial/ethnic minority neighborhoods and communities and to experience how to use social determinants literature in service of collaborative activities with community organizations. P/NP or letter grading.

177. Counseling Relationships. (4) Lecture, two hours; discussion, two hours. Requisites: courses 10, 100A, and 127A or 127B or 127C. Designed for junior/senior Psychology majors. Conceptual and empirical foundations of psychological counseling; comparison of alternative models of counseling processes. Emphasis on counseling techniques, development of interpersonal and mental health areas such as drug abuse, suicide prevention, and crisis intervention. P/NP or letter grading.

184A-184B. Psychology Research Opportunity Program Seminars. (4) Lecture, 300 minutes. Designed to bring together Psychology Research Opportunity Program (PROP) students undertaking supervised tutorial research in seminar setting with one or more faculty members to discuss their own work or related work in discipline. Led by one supervising faculty member. P/NP grading.

185. Research Practicum in Psychology. (3) Laboratory, seven hours. Corequisite: course C194D. Limited to Psychology Research Opportunity Program (PROP) students. Research experience under guidance of faculty mentor. Only 12 units from any combination of courses 185, 192, 194, 195, and 196 may be applied toward undergraduate degree and not be applied toward course requirements for any Psychology Department major. Individual contract required. Information and contracts may be obtained from Undergraduate Advising Office, 1531 Franz Hall. P/NP grading.

186A. Cognitive Science Laboratory: Introduction to Theory and Simulation. (4) Laboratory, four hours. Requisites: courses 10, 85, 100A, 100B, Program in Computing 10A, 10B. Designed for junior/senior departmental majors. Models of cognition within framework of explanation at multiple levels of abstraction. Examples of elementary models in multiple psychological domains (e.g., visual perception, categorization, learning, reasoning, and memory). Types of models include neural networks and symbolic models. Lectures and discussions interwoven with computer simulations written in MATLAB, P/NP or letter grading.


186C. Cognitive Science Laboratory: Psychophysical Theories and Methods. (4) Lecture, two hours; laboratory, two hours. Requisites: courses 10, 85, 100A, 100B. Designed for junior/senior departmental majors. Lectures and laboratory work that examine perceptual measurement procedures (psychophysical methods) and cognitive processing and decision models on which procedures are based, with particular emphasis on detection theory and its applications. Letter grading.

186D. Laboratory in Functional Neuroimaging. (4) Laboratory, four hours. Enforced requisites: courses 10, 100A, 100B. Limited to junior/senior departmental majors. Introduction to study of brain with functional resonance imaging (fMRI). All major aspects to be discussed, from basic physiology of MR signal to data analysis. Letter grading.

188A. Special Seminars: Psychology. (4) Seminar, three hours. Limited to juniors/seniors. Departmentally sponsored experimental or temporary seminars on selected topics in psychology, such as those taught by visiting faculty members. Reading, discussion, and development of culminating project. May be repeated for credit. P/NP or letter grading.

188B. Special Courses in Psychology. (4) Lecture, three hours. Designed for junior/senior majors. Departmentally sponsored experimental or temporary courses on topics of psychological interest, such as those taught by visiting faculty members. Consult Schedule of Classes for topics and instructors. May be repeated for credit. P/NP or letter grading.

188SA. Individual Studies for USIE Facilitators. (1) Tutorial, to be arranged. Enforced corequisite: Honors Collegium 101E. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor to discuss selected USIE seminar topic, conduct preparatory research, and begin preparation for syllabus. Individual contract with faculty mentor required. May not be repeated. Letter grading.

188SB. Individual Studies for USIE Facilitators. (1) Tutorial, to be arranged. Enforced requisite: course 188SA. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor to finalize course syllabus. Individual contract with faculty mentor required. May not be repeated. Letter grading.

188SC. Individual Studies for USIE Facilitators. (2) Tutorial, to be arranged. Enforced requisite: course 188SB. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor while facilitating USIE 88S course. Individual contract with faculty mentor required. May not be repeated. Letter grading.

189. Advanced Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to undergraduate lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

189HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in Colloquium Program. Designed as adjunct to upper-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental reading, writing, and research, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. Letter grading.

190. Research Colloquia in Psychology. (1) Seminar, one hour. Designed to bring together students undertaking supervised tutorial research in seminar setting with one or more faculty members to discuss their own work or related work in discipline. Led by one supervising faculty member. May be repeated for credit. P/NP grading.

191. Variable Topics Research Seminars: Psychology. (1) Seminar, one hour. Limited to juniors/seniors. Research seminar on selected topics in psychology. Research discussion, and development of culminating project. May be repeated for credit. P/NP grading.

191AH-191BH-191CH. Departmental Honors Research Seminars. (2–2–2) Seminar, two hours. Designed for psychology honors program students. Opportunity for development and analysis of creative ideas through individual research projects with faculty sponsor and discussion of student and faculty research presentations. Information and applications may be obtained from Undergraduate Advising Office, 1531 Franz Hall. If approved in advance by Undergraduate Office, courses 191CH and 198 may be applied toward elective course requirement for any Psychology Department major. Letter grading.

192. Education Practices in Psychology. (4) Seminar, three hours. Limited to juniors/seniors. Training and supervised practicum for advanced undergraduate students to assist in courses related to psychology. Students assist in preparation of materials and development of innovative programs under guidance of faculty members and teaching assistants. Only 12 units from any combination of courses 185, 192, 194, 195, and 196 may be applied toward undergraduate degree. May be repeated for credit. Only one course requirement for any Psychology Department major. Individual contract required. Information and contracts may be obtained from Undergraduate Advising Office, 1531 Franz Hall. P/NP grading.
193. Journal Club Seminars: Psychology. (1) Seminar, one hour. Limited to undergraduate students. Discussion of readings selected from current literature of particular field or attendance at and write-ups of speakers series. May be repeated for credit. P/NP grading.

194A. Internship Seminars: Psychology. (2) Seminar, two hours. Corequisite: course 195A. Study of research methods and current literature through group discussion, presentation, and papers. Research topics and topics vary by instructor. Only 12 units from any combination of courses 185, 192, 194, and 196 may be applied to undergraduate degree. May not be applied toward graduate degree. May be arranged. Limited to juniors/seniors. Individual contract required. Information and contracts may be obtained from Undergraduate Advising Office, 1531 Franz Hall. P/NP grading.

194B. Research Group Seminars: Psychology. (1) Seminar, one hour. Corequisite: course 196A (3-unit option). Limited to juniors/seniors who are part of research group. Discussion of research methods and current literature in field or of research of faculty members or students. Only 12 units from any combination of courses 185, 192, 194, and 196 may be applied toward undergraduate degree. May not be applied toward course requirements for any Psychology Department major. Individual contract required. Information and contracts may be obtained from Undergraduate Advising Office, 1531 Franz Hall. P/NP grading.

194C. Research Group Seminars: Cognitive Science. (1) Seminar, one hour. Corequisite: course 196B (3-unit option). Limited to junior/senior Cognitive Science majors who are part of research group. Discussion of research methods and current literature in field or of research of faculty members or students. Only 12 units from any combination of courses 185, 192, 194, and 196 may be applied toward undergraduate degree. May not be applied toward course requirements for any Psychology Department major. Individual contract required. Information and contracts may be obtained from Undergraduate Advising Office, 1531 Franz Hall. P/NP grading.

194D. Research Group Seminars: Practicum. (1) Seminar, one hour. Corequisite: course 185. Designed for undergraduate students who are part of research group. Discussion of research methods and current literature in field or of research of faculty members or students. Only 12 units from any combination of courses 185, 192, 194, and 196 may be applied toward undergraduate degree. May not be applied toward course requirements for any Psychology Department major. Individual contract required. Information and contracts may be obtained from Undergraduate Advising Office, 1531 Franz Hall. Concurrently scheduled with course C296B. P/NP grading.

195A. Community Internships in Psychology. (2) Tutorial (approved community setting), six hours. Corequisite: course 194A. Limited to juniors/seniors. Internship in applications of psychology in supervised setting in community agency or business. Students meet on regular basis with sponsor and provide periodic reports of their experience. Only 12 units from any combination of courses 185, 192, 194, and 196 may be applied toward undergraduate degree. May not be applied toward course requirements for any Psychology Department major. Individual contract with supervising placement sponsor required. Information and contracts may be obtained from Undergraduate Advising Office, 1531 Franz Hall. P/NP grading.

195B. Corporate Internships in Cognitive Science. (4) Tutorial, eight hours. Limited to junior/senior Cognitive Science majors. Practical applications of cognitive science through internship experience in supervised setting. Students meet on regular basis with supervisor and provide periodic reports of their experience. Only 12 units from any combination of courses 185, 192, 194, and 196 may be applied toward undergraduate degree. May not be applied toward course requirements for any Psychology Department major. Individual contract with supervisor required. Information and contracts may be obtained from Undergraduate Advising Office, 1531 Franz Hall. P/NP grading.

196A. Research Apprenticeship in Psychology. (3 to 4) Tutorial. Eight hours. Corequisite: course 194B. Limited to juniors/seniors. Practical applications of psychology through guidance of faculty mentor. Only 12 units from any combination of courses 185, 192, 194, and 196 may be applied toward undergraduate degree. May not be applied toward course requirements for any Psychology Department major. Individual contract required. Information and contracts may be obtained from Undergraduate Advising Office, 1531 Franz Hall. P/NP grading.

196B. Research Apprenticeship in Cognitive Science. (3 to 4) Tutorial. Eight hours. Corequisite: course 194C. Limited to junior/senior Cognitive Science majors. Practical applications of cognitive science through research under guidance of faculty mentor. Only 12 units from any combination of courses 185, 192, 194, and 196 may be applied toward undergraduate degree. May be applied toward course requirements for Cognitive Science major. Individual contract required. Information and contracts may be obtained from Undergraduate Advising Office, 1531 Franz Hall. P/NP grading.

196H. Honors Research in Psychology. (2) Tutorial, two hours. Corequisite: course 191AH or 191BH or 191CH. Limited to juniors/seniors and psychology honors program students. Development and completion of honors thesis or comprehensive research project under supervision of faculty mentor. May be repeated for credit. Individual contract required. Information and contracts may be obtained from Undergraduate Advising Office, 1531 Franz Hall. P/NP grading.

199A. Senior Project in Psychology. (4) Tutorial. To be arranged. Limited to juniors/seniors. Supervised individual research under guidance of psychology faculty mentor. Culminating paper required. Only one 4-unit 199 course may be taken per term. May be repeated for credit. Individual contract required. Information and contracts may be obtained from Undergraduate Advising Office, 1531 Franz Hall. Letter grading.

199B. Senior Project in Psychology. (4) Tutorial. To be arranged. Limited to juniors/seniors. Supervised individual research under guidance of psychology faculty mentor. Culminating paper required. Only one 4-unit 199 course may be taken per term. May be taken only once for letter grade. Individual contract required. Information and contracts may be obtained from Undergraduate Advising Office, 1531 Franz Hall. Letter grading.

Graduate Courses

200A. Pavlovian Processes. (4) Lecture, three hours. Basic principles and characteristics of learning and behavior, including Pavlovian conditioning, instrumental learning, and species-specific behavior. S/U or letter grading.

200B. Instrumental Conditioning. (4) Lecture, three hours. Topics include animal learning and conditioning and application of learning principles to goal-directed action, motivational processes, and goal selection in nonhuman animals. S/U or letter grading.


201. Current Issues in Learning and Behavior. (1) Discussion, 90 minutes. Designed for graduate students. Required of learning and behavior students a minimum of four times (entire first year and winter of second year). Presentation of papers of current interest in learning, behavior, or applied behavioral analyses by experts in the field. Evaluation of their significance and methodology in detail. May be repeated for credit. S/U grading.

202. Research in Learning and Behavior. (2) Forum in which graduate students discuss the literature and methodological, analytical, and interpretational issues related to specific topics of research in learning and behavior. S/U grading.

204A. Basic Motivational Processes. (4) Lecture, three hours. Designed for graduate students. Analysis, using behavioral systems approach, of basic motivated behavior such as feeding, drinking, foraging, and reproduction. Same approach also applied to phenomena such as acquired motivation, reinforcement, and drug addiction. Historical survey of behavioral analyses of motivation and goal-directed behaviors. S/U grading.

204B. Theories of Learning. (4) Discussion, three hours. Requisite: course 200A. Critical discussion and in-depth analysis of current major theoretical approaches to associative learning, with emphasis on recent experimental analyses of conditioning phenomena.

204C. Evaluative Processes. (4) Lecture, three hours. Designed for graduate psychology students. Lectures and discussion on current research in application of learning principles to clinical and social problems such as alcohol and drug abuse, aggression, fear management, mental retardation, behavioral medicine, autism/schizophrenia, etc. S/U or letter grading.

204D. Fear and Anxiety. (4) Lecture, three hours. Designed for graduate students. Graduate training in theoretical and empirical analyses of motivation, in the area of fear and anxiety. Integration of animal and human research. S/U grading.

205A. Cortical Plasticity and Perceptual Learning. (2) Lecture, three hours. Designed for graduate students. Examination of neural basis of perceptual learning. Overview of literature on cortical plasticity and how it relates to different forms of perceptual learning in visual, auditory, and somatosensory modalities. Review of mechanisms of cortical plasticity, including basic features of long-term synaptic plasticity and computational models of cortical processing. Letter grading.

205B. Human Neurophysiology. (2) Lecture, three hours. Designed for graduate students. Examination of higher cognitive processes in terms of neural mechanisms that underlie them. Topics include cortical modularity and organization, coordinated sensory representations, language, regional functional specialization, attention, and regulation of cortical function by descending systems. Letter grading.


205D. Clinical Psychopharmacology. (2) Lecture, three hours. Designed for graduate students. General principles of brain neurotransmitters, including synthesis, cell bodies and pathways, and receptor subtypes. General principles of pharmacology and pharmacokinetics. Major classes of psychoactive drugs, animal models, and “atypical” compounds. Letter grading.


205G. Behavior Genetics. (2) Lecture, three hours. Designed for graduate students. In-depth analysis of structure, anatomy, physiology, and computational methods in study of basic anatomy and activities of biological systems that relate psychological factors to health, and interconnections between these systems. Designed for graduate students. Exploration of neural substrates of high-level processing. Topics include agnosias and characterizations of electrophysiological responses recorded with brief coverage of attention in action and decision. Designed for graduate students. Review of cognitive neuroscience and current knowledge of genetic contributions to cognition and behavior and disorders thereof. Letter grading.

205I. Attention. (2) Lecture, three hours. Designed for graduate students. Review of cognitive neuroscience of attention from classical psychological models to modern computational models. Focus on perception, with brief coverage of attention in action and decision. Letter grading.


205K. Vision Neurobiology. (2) Lecture, three hours. Designed for graduate students. Overview of neural basis of higher cognitive functions, integrating anatomical, physiological, and behavioral approaches and incorporating clinical and experimental data. Systems covered include attention, perception, memory, language, and hemispheric specialization. Letter grading.

205L. Cognitive Neuroscience. (2) Lecture, three hours. Designed for graduate students. Overview of neural substrates of high-level visual processing. Topics include agnosias and characteristics of electrophysiological responses recorded in primates. Discussion of issues regarding neural representation of knowledge. Letter grading.

205N. Dopamine Prediction Error: Case Study of Reinforcement Learning Theory. (2) Seminar, three hours. Designed for graduate students. Letter grading.

206A. Psychology of Chronic Disease. (4) Seminar, three hours. Limited to graduate students. Major themes include conceptualization and operationalization of adjustment to chronic illness: theoretical framework for understanding determinants of adjustment to chronic illness and current research on those determinants, prevalence of psychological disorder in populations with chronic illness, evidence-based psychosocial interventions for individuals with chronic illness, and terminal illness and end-of-life care. Readings and discussion across several major chronic diseases (e.g., cardiovascular diseases, cancer, AIDS, rheumatic conditions). Letter grading.

212. Evaluation of Research Literature in Physiological Psychology. (1) Discussion, 90 minutes. Participation in formal and informal seminars and their significance and methodology discussed in behavioral and population research. S/U or letter grading.


215B. Human Physiology in Social and Behavioral Science. (4) Lecture, three hours. Limited to graduate students. Designed to provide students with understanding of basic anatomy and activities of biological systems that relate psychological factors to health, and interconnections between these systems. Letter grading.

215C. Psychology of Women’s Health. (4) Seminar, three hours. Limited to graduate students. Introduction to field of psychoneuroimmunology to help students develop conceptual and methodological skills necessary for interpreting research in this area. Letter grading.

216C. Psychology of Women’s Health. (4) Seminar, three hours. Limited to graduate students. Examination of biological, emotional, social, and psychosocial aspects of aging. Topics include physical and cognitive changes with age, mental and physical well-being in older adulthood, and socioemotional functioning changes with age. Letter grading.

216D. Psychology of Aging and Health. (4) Seminar, three hours. Limited to graduate students. Examination of biological, emotional, social, and psychosocial aspects of aging. Topics include physical and cognitive changes with age, mental and physical well-being in older adulthood, and socioemotional functioning changes with age. Letter grading.

216E. Families, Emotions, and Health. (4) Seminar, three hours. Limited to graduate students. Discussion of theory and research on biological, emotional, social, and behavioral aspects of childhood family social environments to long-term mental and physical health. Letter grading.

216F. Community Psychology. (4) Seminar, three hours. Limited to graduate students. Social problems common in contemporary practice and the conceptual and methodological issues that arise when designing and evaluating community interventions. Issues related to conceptualization of social problems as opposed to problems, and their implications for intervention. Presentation of multidimensional explanatory models and interventions for several social problems. Special attention to ethnic and socioeconomic health disparities and to methodological challenges in conducting research on these issues. Letter grading.

216G. Biology of Chronic Disease. (4) Seminar, three hours. Limited to graduate students. Examination of basic epidemiology and biology of major chronic diseases (e.g., cardiovascular disease, cancer, diabetes) and consideration of practical and logistical issues involved in studying chronic disease populations in behavioral and population research. S/U or letter grading.

216H. Health Behavior Theory and Behavior Change. (4) Seminar, four hours. Overview of research and theory in health behavior and health behavior change. Identification of contribution of health behaviors to overall health, construction of study models that effectively measure major health behaviors, critical evaluation of health behavior change research, and generation of hypotheses and design research using main health behavior theories. S/U or letter grading.

217. Variable Topics in Health Psychology. (4) Seminar, three hours. Topics vary by instructor within health psychology area of study and may include epigenetics, child health psychology, health behavior, and behavior change. May be repeated for credit. S/U or letter grading.

218. Research Methods in Health Psychology. (4) Seminar, three hours. Designed for graduate psychology students. Majors for health psychology graduate students to study various research designs and methods, measurement issues, responsible conduction of research, and related issues that are found in research in health psychology. S/U or letter grading.

219. Health Psychology Lecture Series. (2) Formerly numbered 425S. Lecture, one hour. Clinicians and researchers in health psychology from Los Angeles and present their research, programs, and/or clinical work as part of training program in health psychology. May be repeated for credit. S/U grading.

220A. Social Psychology. (4) Lecture, three hours. Designed for graduate psychology students. Intensive consideration of concepts, theories, and major problems in social psychology.


220C. Advanced Social Psychology. (4) Lecture, three hours. Requisite: course 220A or 220D. Review of contemporary topics and issues in social psychological research and theory.

220D. Introduction to Social Psychology. (4) Lecture, three hours. Designed for graduate students. Introduction to specific theory and social psychology for students who are not psychology majors. Service course for graduate students in education, sociology, political science, management, public health, etc. S/U or letter grading.


222A. Interpersonal Relations. (4) Discussion, three hours. Requisite: course 220A. Critical review of theory and research on interpersonal relations, with emphasis on friendship and family research.

222B. Interpersonal Influence and Social Power. (4) Seminar, three hours. Preparation: advanced social psychology course (psychological or sociological). Review of theory and research on interpersonal influence and social power, with applications to various power relationships such as supervisor/subordinate, health-care professional/patient, doctor/nurse, parent/child, wife/husband, teacher/student, political figures, etc. S/U or letter grading.

222C. Psychology of Intergroup Relations. (4) Lecture, three hours. Designed for graduate students. In-depth and comprehensive exposure to major theoretical and methodological issues within domains of intergroup relations research. Approaches not simply restricted to work within psychology but across social sciences in general, including anthropology, political science, and sociology. S/U or letter grading.
222D. Social Stigma. (4) Seminar, three hours. Introduction to classic and contemporary theory and research on social psychology of stigma, primarily from perspective of stigmatized. Letter grading.

M222E. Foundations of Organizational Behavior. (4) (Same as Management-PhD M242.) Lecture, three hours. Design for graduate students. Development of classic and contemporary survey of classic and emerging theories and research in field of organizational behavior, with focus on micro-level topics related to individual and interpersonal processes within organizations. Exploration of how individual behaviors, cognitions, and perceptions are affected by organizational context, structure, and culture. S/U or letter grading.

M222F. Professional Issues in Psychology. (4) Seminar, three hours. Acquisition of skills essential for success in graduate school and academia more broadly, including transition to graduate school, writing, manuscript reviewing, grant writing, teaching and mentoring, academic job market, job negotiating, and giving job talks. Involves combination of guest speakers, lectures, discussions, readings, written exercises, and practical experience. S/U or letter grading.

M222G. Social Vision. (4) (Formerly numbered 222GL.) Same as Communication M234.) Seminar, three hours. Exploration of nascent field of social vision, with emphasis on how observers utilize visible cues in face and identity recognition for actions of other people and how these perceptions are moderated by existing knowledge structures and motivations. S/U or letter grading.

M221. Intervention Science. (4) Seminar, three hours. Exploration of use of science as basis for intervention. Exploration of psychology of social problems, and potential for scientific insights to inform meaningful and lasting solutions to social problems. S/U or letter grading.


226A-226B-226C. Current Literature in Social Psychology. (2-2-2) Independent study. Three, four, or five hours. Course 226A is limited to first-year social psychology students. Courses 226B and 226C are open to nonsocial psychology students with consent of instructor. Recent and current social psychological topics in social psychology presented by members of seminar and their significance and methodology discussed and critiqued in depth. S/U grading.

M226A. Proceeding: Political Psychology. (4) (Same as History M236 and Political Science M261A.) Seminar, three hours. Introduction to political psychology: psychobiography, personality and politics, mass attitudes, group conflict, political communication, and elite decision making.

M228B. Seminar: Political Psychology. (4) (Same as Political Science M261D.) Discussion, three hours. Requirements: course 220A or Political Science M261A. Examination of political vision, political socialization, racial conflict, mass political movements, and public opinion. S/U or letter grading.

M228C. Critical Problems in Political Psychology. (4) (Same as Political Science M261E.) Discussion, three hours. Requirements: course 220A or Political Science M261A. Examination of political human nature, political socialization, political socialization, racial conflict, mass political movements, and public opinion. S/U or letter grading.

229. Social Cognition. (4) Lecture, one hour; discussion, two hours. Social cognition is concerned with how people organize and interpret social information in their environment. It provides both a framework for understanding behavior and the basis for grounded in the field and also gives depth and focus on particular research topics in the field. Weekly papers, as well as a lengthy final paper, required.

231. Psychology of Gender. (4) Seminar, three hours. Preparation: one prior course on gender/women’s studies. Critical evaluation of current research and theory concerning psychology of gender, drawing on work from various areas of psychology to understand sources of gender differentiation and its consequences for human behavior and social interaction.

233. Human Sexuality. (4) Lecture, three hours. Designed for graduate students. Intended to teach students how to carry out research on human sexual behavior. Contents include theory construction, scale development, physiological and endocrinological implications, evaluation of studies of various classificatory systems (menstruation, hormones in blood sample), ethical issues, methodological and statistical considerations, measurement of sexual arousal, fantasy, and sexual dysfunction therapy. Discussion-centered, with emphasis on operationalizing predictions concerning human sexual functioning.

233. Seminar: Environmental Psychology. (4) Requires: courses 235, 250A, 250B. A critical review of work in environmental psychology designed to identify basic dimensions for analysis of environmental relationships. Use of human emotional responses to environments as intervening variables linking specific stimulus qualities to a variety of approach-avoidance behaviors. Individual differences and drug-induced states as these relate to emotional response dimensions used to explain within-individual differences in response to same environment over time or between-individual differences to same situation. Review of literature relating information rate from environments to arousal and preferences for those environments.

234. Social Psychological Aspects of Competitive Sport. (4) A critical examination of social psychological aspects of competitive sport for children, sport is presented as a major achievement domain for young participants. Topics include sources and consequences of competitive stress, significant adult influences and interactions, predictors of performance, determinants of participation and dropping out, and socialization through sport.


M236. Interdisciplinary Relationship Science. (4) (Same as Anthropology M217C, Education M219, and Sociology M270.) Lecture, three hours. Limited to graduate students. Diverse approaches to relationship science in fields of anthropology, education, psychology, and sociology. Focus on theme of understanding social, behavioral, and cultural aspects of relationships through diverse theoretical and methodological approaches. Use of broad definition of interpersonal relationships, including relationships such as parent-child, teacher-student, sibling, peer, kin, romantic relationships, marriages, and friendships. S/U or letter grading.

M238. Survey Research Techniques in Psychocultural Studies. (4) (Same as M237A and M237B.) Seminar, three hours. Designed for graduate students. Techniques for conceptualizing, conducting, and analyzing survey data; instruction in qualitative strategies for enhancing survey research on psychocultural problems.

M239. Personality, Motivation, and Attribution. (4) (Same as Education M215.) Discussion, three hours. Current research and theory relating personality variables (e.g., attributional styles, self-esteem) to motivational concerns such as persistence and intensity of behaviors. Perceived causes of outcomes in achievement and affiliated domains. S/U or letter grading.

240A. Language and Cognitive Development. (4) Lecture, three hours. Preparation: one undergraduate developmental psychology course in cognitive or language development. Designed for graduate students. Consideration of major topics and concepts, key theories, latest methods, and research findings in development of language and cognitive development. S/U or letter grading.

240B. Social and Emotional Development. (4) Lecture, three hours. Preparation: one undergraduate developmental psychology course in cognitive or language development. Designed for graduate students. Consideration of major topics and concepts, key theories, latest methods, and research findings in social and emotional development. S/U or letter grading.

240C. Developmental Psychobiology. (4) Lecture, three hours. Limited to graduate students. Introduction to emerging field of developmental psychobiology, including cognitive and affective neuroscience.

241. Current Development in Developmental Psychology. (1) Discussion, 90 minutes. Designed for graduate developmental psychology students. Preparation: consent of instructor. Current development in developmental psychology and closely related areas by experts in the field, emphasis on approaches to a problem, making it suitable to interweave presentations by graduate students. S/U grading.

M242A-M242G. Seminars: Developmental Psychology. (4 each) Each course may be taken independently and may be repeated for credit.

242A. Perceptual Development. (4) Seminar, three hours. Requisites: courses 240A, 240B. May be taken independently and may be repeated for credit. S/U or letter grading.

242B. Cognitive Development. (4) Seminar, three hours. Requisites: courses 240A, 240B. May be taken independently and may be repeated for credit. S/U or letter grading.

242C. Socialization. (4) Seminar, three hours. Requisites: courses 240A, 240B. May be taken independently and may be repeated for credit. S/U or letter grading.

242D. Development of Language and Communication. (4) Seminar, three hours. Requisites: courses 240A, 240B. May be taken independently and may be repeated for credit. S/U or letter grading.

M242G. Adolescent Development. (4) (Same as Education M217F.) Seminar, four hours. Designed for graduate students. Review of recent research on physical, cognitive, social, and psychological development during second decade of life. Topics include pubertal development, changes in parent/adolescent relationships, role of peers, identity development, high-risk behaviors, stress and coping, and school adjustment. Letter grading.

243A-243B. Seminars: Practical and Societal Issues in Developmental Psychology. (4-4) Seminar, three hours. Requisites: courses 240A, 240B. Socialization processes in human development and implications for social/political, educational research, issues values, and societal change. In Progress (243A) and S/ U or letter grading (243B) grading.

244. Critical Problems in Developmental Psychology. (4) (Same as Education M217C.) Lecture, four hours. Review of research and theory of critical content areas in personality development that bear on school performance; achievement motivation, self-concept, aggression, sex differences, empathy, and other social behaviors; review of status of emotional behavior in personality theory and development. S/U or letter grading.


M247. Culture, Brain, and Development. (4) (Same as Sociology M249.) Seminar, three hours. General introduction to interactions of culture, brain, and development, including both social and cognitive development. Special attention to effects of social change on culture and human development. S/U or letter grading.

248. Brain and Behavioral Development During Adolescence. (4) (Formerly numbered 248.) Seminar, three hours. Foundational and emerging work on adolescent brain and behavioral development. Topics include cognition, risk taking, emotion, identity, stress, relationships, and populations diversity. Discussions of assigned readings and presentations by guest faculty and scientists. S/U or letter grading.

250A. Advanced Psychological Statistics. (4) Re- view of traditional hypothesis testing, analysis of variance, and regression analysis techniques as applied to design and interpretation of experimental and observational research.

250B. Advanced Psychological Statistics. (4) Ad- vanced experimental design and planning of investi- gations.

250C. Advanced Psychological Statistics. (4) Le- cture, three hours; discussion, two hours. Requisite: course 250A. Limited to graduate students. Review of traditional hypothesis testing, analysis of variance, and regression analysis techniques, including model comparison strategies, evaluation of model assumptions, testing mediation and moderation hypotheses, working with categorical vari- ables, general linear model, and logistic regression. Letter grading.

251A-251B-251C. Research Methods. (4–4–4) Tuto- rial, to be arranged. Designed for graduate psychology students. Students design and conduct original research. Faculty supervision and instruction in charge. It is anticipated that many students will com- plete their project in two terms (normally three terms allowed). S/U (251A, 251B) and S/U or letter (251C) grading.


252B. Discrete Multivariate Analysis. (4) Lecture, three hours. Requisites: courses 250A, 250B. Introduction to analysis of frequency table data. Topics include contingency table analysis, log-linear models, discriminant analysis, principal component analysis, and ordered categorical variables. Applications from various areas of psychology.


254A. Computing Methods for Psychology. (4) Le- cture, three hours. Requisites: courses 250A, 250B. Use of MATLAB, but only basic programming knowl- edge assumed. Knowledge of MATLAB required. Designed to teach basic computer methods relevant to work in experimental psychology and cog- nitive science. Topics include simulation/modeling, statistical data analysis, and stimulus presentation. S/U or letter grading.

254B. Mediation, Moderation, and Conditional Pro- cess Analysis. (4) Lecture, three hours. Requisite: course 250C. Designed for students with previous experience with regression analysis. Application of linear and logistic regression to assess how (mediation and when (moderation) effects occur; and combination of these to examine when certain processes occur (con- ditional on data). S/U or letter grading.


256A. Introduction to Multilevel Modeling, (4) Le- cture, four hours. Requisite: course 250C. Basics of random coefficient models, with focus on three-level models, individual nested within groups and (2) repeated ob- servations of individuals (longitudinal growth models). Selected advanced topics, including three-level models, crossed-classification dynamics, categorical data, cognitive outcomes, power, and assumption violation. S/U or letter grading.

256B. Advanced Multilevel Modeling. (4) Lecture, four hours. Requisite: course 256A. Advanced topics in analysis of clustered and longitudinal data, in- cluding nonlinear models, multilevel mediation, nonhi- erarchical data structures, meta-analysis, modeling variance, and other topics of student interest. Read- ings in both quantitative and substantive multilevel modeling literature. S/U or letter grading.


258B. Special Problems in Psychological Statistics. (4) Lecture, three hours. Requisites: courses 250A, 250B. Special problems in psychological statistics and data analysis.

259. Quantitative Methods in Cognitive Psycholo- gy. (4) Requisites: courses 250A, 250B. Use of nonstatistical mathematical methods and techniques commonly used in cognitive psychology. Topics in- clude Markov chains, other stochastic processes, queueing theory, information theory, frequency anal- ysis, etc.


261. Perception. (4) Lecture, three hours. Concepts, theories, and research in study of perception. Con- siders the questions: Why do things look, sound, smell, taste, or feel as they do? What is the nature of perception systems? How do these systems process information?

262. Human Learning and Memory. (4) Lecture, three hours. Contemporary theory and research in human verbal learning and memory; verbal and non- verbal learning and memory processes, structure and organization of short- and long-term memory, S/U or letter grading.


268A-268E. Seminars: Human Information Pro- cessing. (4 each) Seminar, three hours. Topics vary with interests of instructor. Each course may be taken independent and may be repeated for credit.

268F. Human-Computer Interaction. (4) Lecture, three hours. Limited to graduate students. Concepts, theories, and pragmatics of human-computer interac- tion. Topics include optimizing Web and product inter- faces to enhance quality of user experience, with focus on applying principles of cognition, perception, learning, and memory to create human-computer in- teractions that are consonant with user needs and ca- pabilities. Course projects include creating and user testing of actual Web-based application. S/U or letter grading.

269. Seminar: Cognitive Psychology. (4) Seminar, three hours. Discussion of problems in cognitive psy- chology that encompass more than a single subject field of the area. May be repeated for credit.


271D. Clinical Research Laboratory. (2) Discussion, one hour; laboratory, one hour. Corequisites: courses 270A or 270B or 270C, and 271A or 271B or 271C. Designed for graduate clinical psychology students. Acquaints students with faculty research interests and involves them in their course 251 research at an early stage to insure completion. S/U grading.

271E-271F. Clinical Research Laboratories. (2–2) Requisite: course 271D. Designed for graduate clinical psychology students. Required of first-year clinical psychology students. S/U grading. 271E. Brief over- view of research design issues in clinical psychology and practical issues in data analysis and research activi- ties. 271F. Discussions of students’ particular research activities and issues, plus laboratories in computer analysis of statistical data.

271G. Evidence-Based Intervention for Childhood Problems. (4) Fieldwork, five-day, 35-hour training period in Fall Quarter. Requisites: courses 271A, 271B, 271C. Designed for second-year graduate clinical psychology students. Training of students in applica- tion of (1) child treatment outcome literature, (2) clin- ical monitoring and feedback tools, and (3) common clinical strategies from evidence-based practices to prepare for assessment, monitoring, planning, and service delivery in child behavioral disorders.


272C. Clinical Interventions for Psychological Problems of Children. (4) Seminar, three hours. Requisites: courses 270A, 270B, 270C. Survey of research, theory, and content for each applies to specific clinical cases, with emphasis on depression, bipolar disorder, and schizophrenia. Discussion of areas of research that relate to family theories, modes of assessment, and specific interventions. May be taken independently for credit. Letter grading.

272E. Special Problems. (4) Seminar, three hours. Requisite or corequisite: course 401 or 451. May be taken independently for credit. Letter grading.

275F. Behavior Modification with Adults. (4) Seminar, three hours. Requisite or corequisite: course 401 or 451. Designed for second-year graduate clinical psychology students. Current cognitive behavior modification principles and techniques. Major conceptual issues; specific techniques demonstrated and practiced by students to cover a range of adult problems such as depression, stress and anxiety, anger management, assertion problems. May be taken independently for credit. Letter grading.

272G. Marital Therapies. (4) Lecture, two hours; discussion, one hour; laboratory, one hour. Requisites: courses 271A, 271B, 271C, 271A, 271B, 271C. Examination of assessment and treatment approaches for relationship problems in couples. Presentation, discussion, and illustration of procedures derived from social-learning, psychodynamic, and systems theories, with relevant research findings. May be taken independently for credit. Letter grading.

273A-273B/273C. Professional and Ethical Issues in Clinical Psychology. (2–2–2) Lecture, one hour; discussion, one hour. Designed for graduate clinical psychology students. Year-long course sequence covering variety of topics necessary for clinical psychologists in their clinical work, including legal and ethical issues, consultation, assessment, issues in empirically validated treatments, psychodiagnostic consultation and psychoactive medications, working with diverse client populations, etc. Letter grading.

272H. The Health Behaviors of Racial and Ethnic Minority Populations. (4) Same as Health Policy and Management M274.) Lecture, two hours; discussion, one hour. Limited to graduate students. Overview of physical and mental health behaviors and status of major racial/ethnic groups in U.S. Where appropriate, discussion of international issues as well. S/U or letter grading.

275. Conceptual and Methodological Issues in Community Intervention. (4) Lecture, three hours. Limited to graduate students. Conceptualization of social problems from macrosocial perspective; discussion of multidimensional explanatory models for select illustrative problems; discussion and critical evaluation of both individual-focused and community-focused interventions with high-risk and impacted populations. S/U or letter grading.

276. Children with Learning and Related Behavioral Problems: School Policy and Practice. (4) Lecture, two hours; discussion, one hour. Designed for graduate psychology students. Exploration of learning and related behavioral problems and individual as basis for analyzing cause and intervention. Issues related to evaluating policies and practice in schools, and new directions for research, policy, practice, and training. S/U or letter grading.

277A-277B. Advanced Clinical Assessment. (4–4) Lecture, four hours; laboratory, three hours. Designed for graduate clinical psychology students. Projective techniques, clinical interpretation, case studies, psychophysiological test battery, psychopharmacology, and application of assessment to problems in psychotherapy. Letter grading.

278. Functional Neuroimaging: Techniques and Applications. (3) Same as Bioengineering M284, Neuroscience M285, Psychology M286. Lecture, three hours. In-depth examination of activation imaging, including MRI and electrophysiological methods, data acquisition and analysis, experimental design, and results obtained thus far in human systems. Focus on understanding technologies, how to design activation imaging paradigms, and how to interpret results. Laboratory and seminar on interpretation of functional MRI experiment. S/U or letter grading.


280. Affective Disorders. (2 or 4) Same as Psychiatry M234.) Seminar, two hours. General topics related to primary affective disorders (depression, manic depressive illness), including diagnosis, pharmacology, epidemiology, psychology, phenomenology, biology, and treatment. Students enrolled for 4 units are assigned to a research group that meets with a particular instructor. May be repeated for credit. S/U grading.

283. Psychopathology. (4) Lecture, three hours. Survey of dominant psychological attributes of particular individuals, including analysis of status of various theories concerned with etiology and mediating mechanisms of personality, neurotic, schizophrenic spectrum, and affective disturbances. S/U or letter grading.


287. Critical Problems in Clinical Research Methodology. (4) Seminar, to be arranged. Preparations: apprentice personnel employment as teaching assistant, associate, or letter grading. Preparation: apprentice personnel employment as teaching assistant, associate, or letter grading. Preparation: apprentice personnel employment as teaching assistant, associate, or letter grading. Preparation: apprentice personnel employment as teaching assistant, associate, or letter grading.


289. Psychology of Diversity. (4) Seminar, three hours. Introduction to research and theory on group characteristics and psychosocial factors in accounting for disparities in physical and psychological health in racial/ethnic groups. Attention to variety of specific disorders, with focus on explanatory models and approaches to intervention. S/U or letter grading.

290. Functional Neuroimaging: Techniques and Applications. (3) Same as Bioengineering M284, Neuroscience M285, Psychology M286. Lecture, three hours. In-depth examination of activation imaging, including MRI and electrophysiological methods, data acquisition and analysis, experimental design, and results obtained thus far in human systems. Focus on understanding technologies, how to design activation imaging paradigms, and how to interpret results. Laboratory and seminar on interpretation of functional MRI experiment. S/U or letter grading.


292. Biobehavioral Mechanisms of Stress and Disruption. (4) Seminar, to be arranged. Preparation: apprentice personnel employment as teaching assistant, associate, or letter grading. Preparation: apprentice personnel employment as teaching assistant, associate, or letter grading. Preparation: apprentice personnel employment as teaching assistant, associate, or letter grading.


295. Psychology of Diversity. (4) Seminar, three hours. Introduction to research and theory on group characteristics and psychosocial factors in accounting for disparities in physical and psychological health in racial/ethnic groups. Attention to variety of specific disorders, with focus on explanatory models and approaches to intervention. S/U or letter grading.

296A. Research Topics in Psychology. (1) Research group meeting, one hour. Limited to graduate students. Discussion of current literature, new ideas, methodological issues, and preliminary findings. Research presentations and opportunities for feedback on current and proposed research activity to encourage, support, and facilitate student research expertise. Assigned readings included. S/U grading.

296B. Research Group Seminars: Practicum. (1) Seminar, one hour. Designed for graduate students who are part of research group that meets with undergraduate students. Discussion of research methods and current literature in field or of research of faculty members or students. Concurrently scheduled with course C194D. S/U grading.


298. Special Problems in Psychology. (4) Discussion, three hours. Content depends on interests of particular instructor. May be repeated for credit. S/U or letter grading.

299. Teaching Apprentice Practicum. (1 to 4) Seminar, to be arranged. Preparation: apprentice personnel employment as teaching assistant, associate, or letter grading. Preparation: apprentice personnel employment as teaching assistant, associate, or letter grading. Preparation: apprentice personnel employment as teaching assistant, associate, or letter grading.
### Public Affairs

#### Undergraduate Study

**Public Affairs Minor**

To enter the Public Affairs minor, students must have an overall grade-point average of 2.0 or better and complete Public Affairs 10 with a grade of B or better. For more information, contact the Undergraduate Advising Office by e-mail.

*Required Lower-Division Courses (10 units):* Public Affairs 10, and 40 or 60.

*Required Upper-Division Courses (20 to 25 units):*

1. Two or three theory and/or methods courses selected from Public Affairs 110, 111, 112, 113, 114, 115, 116; or
d2. Two or three elective courses selected from upperdivision, undergraduate courses (100-199) within the four academic units of the Luskin School of Public Affairs: public affairs, public policy, social welfare, and urban planning. Students must complete five upper-division courses. If three theory/methods courses are selected, two electives are required; if two theory/methods courses are selected, three electives are required.

Lower-division courses may not be substituted. If a student has taken a non-public affairs course in statistics or microeconomics, it is recommended that the other public affairs course be taken to satisfy the second lower-division requirement.

By petition only, students may request to use one outside course (not from a Luskin School of Public Affairs unit) as an elective for the minor.

**Fieldwork and internship courses**, such as Social Welfare 130A, 130B, and Urban Planning 165, may not be applied toward the minor.

A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor.

Each minor course must be taken for a letter grade, and students must have an overall grade-point average of 2.0 or better in the minor. Successful completion of the minor is indicated on the transcript and diploma.

#### PUBLIC AFFAIRS

**Interdisciplinary Minor
Meyer and Renee Luskin School of Public Affairs**

3343 Public Affairs Building
Box 951656
Los Angeles, CA 90095-1656

**Public Affairs Minor**

310-794-4080
E-mail contact

Meredith Phillips, PhD, Chair

**Faculty Committee**

Amada Armenta, PhD (Public Policy)
Kenya L. Covington, M.C.P, PhD (Public Policy)
Michael C. Lens, MPP, PhD (Public Policy, Urban Planning)

Lené F. Levy-Storms, MPH, PhD (Social Welfare)
Meredith Phillips, PhD (Public Policy, Sociology)

**Scope and Objectives**

The Public Affairs minor teaches undergraduate students the skills of policy analysis and exposes them to many of the local, state, national, and international issues facing today's policymakers and opinion leaders. Courses explore the public (governmental) and nonprofit sectors and provide a theoretical, conceptual, and practical foundation for students. Particular attention is given to the vexing issues facing urban areas and urban planners, social welfare and social workers, and public policies that affect individuals and groups of people in their public and private lives.

#### PUBLIC AFFAIRS SCHOOLWIDE PROGRAMS

**Meyer and Renee Luskin School of Public Affairs**

3343 Public Affairs Building
Box 951656
Los Angeles, CA 90095-1656

**Public Affairs Major**

310-794-4080
E-mail contact

Meredith Phillips, PhD, Chair

**Faculty Committee**

Amada Armenta, PhD (Urban Planning)
Kenya L. Covington, M.C.P, PhD (Public Policy)
Michael C. Lens, MPP, PhD (Public Policy, Urban Planning)
The Public Affairs major offers students a rigorous conceptual and empirical foundation that prioritizes capacity for action by students exhibiting high motivations for public service and social change. It combines interdisciplinary training in the social sciences with practical experience addressing public problems. Students will learn theoretical, empirical, and critical foundations of applied social science, qualitative and quantitative research methods, and the history and practice of community engagement.

Public Affairs students traverse the boundary between the classroom and the world through instruction in public engagement and experiential learning that develop students’ capacity to work collaboratively with communities, government agencies, nonprofit organizations, and businesses. The major serves as a pathway for students pursuing careers serving the public interest in civil society, business, government, or through advanced graduate training in academic or professional programs.

**Undergraduate Study**

**Public Affairs BA**

**Capstone Major**

**Learning Outcomes** The Public Affairs major has the following learning outcomes:

- Understanding of how different contexts, institutions, and/or environments influence individual and public life and can create, exacerbate, or reduce inequality and injustice
- Demonstrated familiarity with economic, political, and/or civil society responses to social problems and public issues
- Location of, use of, and critical thinking about qualitative and quantitative evidence for understanding societal problems and/or their solutions
- Formulation of clear and convincing written and oral arguments for varied audiences
- Effective communication with collaborators, policymakers, and/or the public
- Application of theoretical knowledge, analytical methods, and communication skills to an experiential learning capstone

**Admission**

Students must apply to declare the Public Affairs major. Admission into the major is based on student academic performance and an application process. Consult with Luskin School of Public Affairs undergraduate advisers for any additional admission requirements.

**Premajor**

Students entering UCLA directly from high school can select the Public Affairs premajor on the UCLA admission application, or complete a petition to enter the premajor once in attendance at UCLA. Transfer students are not typically admitted to the major if they select Public Affairs on the UCLA admission application. See the Transfer Students section for more details.

The Public Affairs major includes eight lower-division courses and ten upper-division courses. Students identified as Public Affairs premajors have the opportunity to formally apply to declare the Public Affairs major after completing five of the required lower-division courses and the school quantitative reasoning and Writing I requirements. Two of the five required lower-division courses must be Public Affairs 40 and 60, both of which serve as requisites for upper-division coursework.

Students may only apply to the Public Affairs major during winter quarter of their first or second year, once they have satisfied the following criteria: (1) Must be in good standing at the time of application. This means students cannot be on probation or subject to dismissal status when they apply. (2) Have completed, with a C or better, at least five of the eight required lower-division public affairs courses (including courses taken winter quarter). Completed courses must include Public Affairs 40 and 60. The remaining two courses, if not yet taken, must be taken as soon as possible, and during the third year at the latest. All courses for both the premajor and the major must be taken for a letter grade. (3) Have completed at least 45 letter-graded units (including AP and transfer units, if needed) by the end of winter quarter of the year they apply. (4) Have not exceeded 135 units of coursework (not including AP or other transfer units) by the end of winter quarter of the year they apply.

**Preparation for the Major**

Required: Public Affairs 10, 20, 30, 40, 50, 60, 70, 80. Each course must be taken for a letter grade. Preparation for the major courses must be completed with a C grade or better.

**Transfer Students**

Transfer applicants to the Public Affairs major with 90 or more units are considered for admission based on successful completion of the preparation for the major coursework. Students must take all preparation for the major courses for a letter grade, and receive a B grade or better in these courses to be competitive. Transfer credit is subject to department approval. Consult an undergraduate counselor before enrolling in any courses for the major.

Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

**The Major**

Required: (1) Two theory courses selected from Public Affairs 110, 111, 112, 113, 114; (2) both research methods courses Public Affairs 115, 116; (3) three-term capstone sequence Public Affairs 187A, 187B, 187C; (4) three additional upper-division public affairs courses. Each course must be taken for a letter grade, and students must have an overall grade-point average of 2.0 or better in the major.

**Public Affairs Lower-Division Courses**

10. Social Problems and Social Change. (8) Lecture, three hours; discussion, one hour. Introduction to social scientific approaches to study of social problems and their solutions. Using selected contemporary social problems as cases, and drawing on variety of sources (such as scholarly readings, video clips, and guest speakers), exploration of how social problems and their solutions come to be defined, roles that economic, political, educational, and cultural institutions play in perpetuating or solving social problems, and how individuals, social advocates, and communities can lead or impede social change. Letter grading.

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

20. Power, Politics, and Social Change. (5) Lecture, three hours; discussion, one hour. Introduction to key institutions of government, politics, and policy in U.S., covering their history, contemporary forms, and internal dynamics. Includes various scales and branches of government as well as institutions that exercise power and influence in public decision making and social action, such as corporations, unions, media, social movements, and civil society. Letter grading.

30. Comparative Analysis of Wealth, Policy, and Power. (5) Lecture, three hours; discussion, one hour. Exploration of strategic interactions that give rise to social problems around world, what can be done to address them, and how different policies have tried (and sometimes failed) to mount effective response. Applications include climate change, antivaccination movement, protest and repression, war and formation of states, corruption, and human and drug trafficking. Letter grading.

50. Microeconomics for Public Affairs. (5) Lecture, three hours; discussion, one hour. Introduction to principles of microeconomics with focus on social and policy problems. Study of decisions by firms and individuals, and implications for allocation of resources. Application of economic models to public issues such as social safety net, minimum wage, education, inequality, and poverty. Letter grading.

50. Foundations and Debates in Public Thought. (5) Lecture, three hours; discussion, one hour. Introduction of core concepts of democracy and equality and challenges to implementation posed by race, class, and gender inequality. Review of standards by which political systems can be judged to be democratic and identification of obstacles to their mutual implementation. Focus on inequality, its historical causes and modern consequences. Letter grading.

60. Using Data to Learn about Society: Introduction to Empirical Research and Statistics. (5) Lecture, three hours; discussion, two hours. Introduction to statistics through examination of topics of public interest. Familiarization with research design principles and hands-on data analysis using statistical software. Students learn how to find and organize quantitative data; summarize, display, and interpret data; draw inferences from samples (including understanding margins of error, standard errors, and confidence intervals); test hypotheses about associations between two variables (including tests of proportion, t-tests, chi-squared, correlation); and communicate findings to lay audience. Letter grading.

70. Information, Evidence and Persuasion. (4) Lecture, three hours; discussion, one hour. Examination of public life of evidence and arguments by different actors in social policy-making, persuasion, and propaganda process. Letter grading.
80. How Social Environments Shape Human Development. (4) Lecture, four hours; discussion, one hour. Overview of major theoretical, conceptual, and empirical traditions in study of human development. Exploration of how diverse cultural, social, socioeconomic, and historical contexts are associated with biological, cognitive, and psychological processes to affect individuals during key developmental periods (such as early childhood, childhood, adolescence, early adulthood, and late adulthood). Topics may include historical changes in families, schools, neighborhoods, and workplace; economic conditions of families, schools, and neighborhoods; enduring effects of childhood on adult well-being; gender; race; and historical characteristics such as gender, race, and nationality on individuals’ environments, pathways, and outcomes. Letter grading.

95. Introduction to Community or Corporate Internships in Public Affairs. (2 or 4) Tutorial; two hours; fieldwork, eight hours. Limited to freshmen/sophomores. Entry-level internship in supervised setting in corporate, governmental, or nonprofit/community organization related to public affairs. Students meet on regular basis with instructor and provide periodic reports of their experience. Individual contract with supervising faculty member required. May be repeated. May not be used toward Public Affairs major capstone requirement; consult with undergraduate adviser. P/NP grading.

99. Student Research Program. (1 to 2) Tutorial (supervised research or other scholarly work), three hours per week; supervision of research for first-year and sophomore students under guidance of faculty mentor. Students must be in good academic standing and enrolled in minimum of 12 units (excluding this course). Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP grading.

Upper-Division Courses

M109. Introduction to Cities and Planning. (4) (Same as Urban Planning M120.) Lecture, three hours. Survey of urban history and evolution in U.S., urban social theory, current growth trends, system of cities, urban economy and economic restructuring, traditional and alternative location theories, urban transportation, and residential location and segregation. P/ NP or letter grading.

110. Urban Revolution: Space and Society in Global Context. (4) Lecture; three hours; discussion, one hour. Examination of potentials and challenges of 21st-century urban revolution in global context. Introduction to frameworks and conceptual methods used by urban studies and planning to study cities and urban transformations, and historical and contemporary analysis of urbanization to learn about key urban social processes, including agglomeration, segregation, gentrification, and suburbanization. Students learn about institutions and policies governing transportation and housing, and forms of community organizing and civil society that seek to redress urban inequalities. Introduction to key theories of space and utopian visions of urbanism. Letter grading.

111. Microeconomics: Market Failures and Inequality. (4) Lecture; three hours; discussion, one hour. Requisites: courses 40 (or Economics 1 or 11 or equivalent introductory economics course), 60 (or Political Science 6 or Statistics 10 or equivalent introduc- tory statistics course), 101 (or introductory introduction to economic theory for policy analysis). Broad focus on evaluating rationale for government intervention in economy, in particular to address market failures and issues of economic inequality. Major emphasis on market failures in context of environmental sustainability, and economic inequality arising from markets for human capital, health, housing, and labor. Students are expected to have working knowledge of basic statistical and economic concepts. Letter grading.

112. Social Movements. (4) Lecture; three hours; discussion, one hour. Introduction to theories, real-life examples, and applied skills for understanding and contribut- ing to social movements. Examination of how and why social movements emerge; how and why people join, lead, stay, or drop out of movements; and strategies and tactics by which social movements enact change. Draws upon wide range of social movements inside and outside of U.S. Letter grading.

113. Policy Analysis: Approaches to Addressing Social Problems. (4) Lecture; three hours; discussion, one hour. Introduction to applied policy analysis designed to train students in logic of policy analysis, introduce them to general skills required to do policy analysis, and to prepare them in persuasive presentation of their work. Development of skills fundamental to effective policy analysis and argumentation. Letter grading.

114. People, Organizations, and Systems. (4) Lecture, three hours. Theoretical approaches to human service organizational social policy; helping relationships and problem-solving processes in which helpers and clients in organizations engage. Examination of organizational structures/function. Study of interplay between individual clients, organizations, larger systems, and social and cultural backdrop. Letter grading.

115. Using Quantitative Methods to Understand Social Problems and Their Potential Solutions. (5) Lecture, three hours; laboratory, course 60 or equivalent introductory statistics course. Course in R preferred. Introduction to multivariate quantitative research models used to answer questions in social policy, examine relationships between social changes, and social and policy effects in the context of environmental sustainability, and reflection on how experiences with bureaucracies convey messages about race, citizenship, and belonging. Letter grading.

M142. Latino Social Policy. (4) (Same as Chicana and Chicano Studies CM177.) Lecture, three hours; discussion, one hour. Exploration of major social issues and public policies affecting Hispanics in the U.S. from the perspective of social policy processes. Letter grading.


148. U.S. Housing Policy and Geography of Opportunity. (4) Lecture, three hours. Exploration of contemporary levels of residential segregation and socioeconomic inequality. (Same as Urban Planning M120.) Lecture, four hours. Exploration of history, location, and causes of most prevalent affordable housing policies; and evaluation of their respective program designs and outcomes. Letter grading.

M150. Internship in Planning for Urban Planners. (4) (Same as Public Policy M152.) Seminar, three hours. Study of complex arena of public policy and ethical concerns in planning and community development; necessity to balance demands from interest groups in cities, private businesses, nonprofit sectors, public general; and interrelationships between local government implementation and federal urban laws and regulations. Letter grading.

M153. Transportation and Land Use: Parking. (4) (Same as Urban Planning CM151.) Lecture, three hours. Requisites: course 40 or Economics 1 or 11. Parking is misunderstood link between transportation and land use. Transportation planners typically assume that free parking simply is there at end of most trips, while urban planners treat parking as transportation issue that engineers must study. No profession is increasingly responsible for managing parking, yet parking seems to assume that someone else is doing hard thinking. Mistakes in planning for parking help to explain why planning for transportation and land use has in many ways gone terribly wrong. Study of theory and practice of planning for parking and examination of how parking for planning in U.S. has become planning for free parking. Exploration of new ways to improve planning for parking, transportation, and land use. Letter grading.

M159. Politics of Water. (4) (Same as Public Policy M168.) Lecture, three hours. Access to safe and sustainable water provision is major challenge for governments worldwide. Examination of economic, social, and political dimensions of water provision in Asia, Africa, Latin America, and US. Key issues include water and state building, market reforms and globalization, social mobilization and citizen demand making strategies, role of crisis in citizen claims making. Letter grading.

M160. Urban Sustainability. (4) (Same as Urban Planning M161.) Lecture, three hours. In 21st century, most of Earth’s population lives in urban areas and virtually no part of globe remains untouched by human influence. Cities constitute crucibles of most pressing social and environmental challenges but are also crucial centers for addressing those challenges. Examination of theory and practice from geography and related fields to understand many articulations of urban sustainability and how it might be achieved. Letter grading.

164. Race, Rights, and Citizenship: Encounters with Bureaucracies. (4) Lecture, three hours. Examination of role of bureaucracies in emergence of, persistence of, and experience of social inequality. Exploration of dilemmas that bureaucrats face as they do their jobs, and experiences of residents who interact with bureaucrats. Consideration of how people’s experience of bureaucracies are associated with socioeconomic standing, and reflection on how experiences with bureaucracies convey messages about race, citizenship, and belonging. Letter grading.
187A-187B-187C. Experiential Learning Capstone. (4–4–4) Lecture, two hours; discussion, one hour. Course 187A is requisite to 187B, which is requisite to 187C. Limited to and required for senior Public Affairs majors. Students apply public affairs course concepts and methods to internship experience; refine understanding of concepts and methods based on internship experience; gain new knowledge about specific topics related to their internship; and develop new skills needed to complete capstone project. Letter grading.

191A. Variable Topics Seminar: Public Affairs. (4) Seminar, three hours; outside study, nine hours. Emerging issues in public affairs may be repeated for credit. Letter grading.

191DC. CAPP Public Affairs, Washington, DC, Research Seminars. (8) (Same as Communication M191DC, History M191DC, Political Science M191DC, and Sociology M191DC.) Three seminars, three hours. Limited to CAPP Program students. Seminars for undergraduate students in Center for American Politics and Public Policy’s program in Washington, DC. Focus on development and execution of original research based on experiences from Washington, DC-based field placements. Study of variety of qualitative methods (observation, interviewing, etc.), with combinations of techniques and sites of solid and significant research; intensive writing. Letter grading.

191P. Variable Topics Seminar: Public Policy. (4) (Same as Public Policy CM191B.) Three seminars, three hours; outside study, nine hours. Emerging issues in public policy may be repeated for credit. P/NP or letter grading.

195. Community or Corporate Internships in Public Affairs. (2 or 4) Tutorial, to be arranged; fieldwork, six to 12 hours. Limited to juniors/seniors. Internship in supervised setting in corporate, governmental, or non-profit/community organization setting related to Public Affairs. Students meet with instructor and provide periodic reports of their experience. Individual contract with supervising faculty member required. May be repeated for credit. May not be used toward Public Affairs major capstone requirement; consult with undergraduate adviser. P/NP or letter grading.

195DC. CAPP Public Affairs, Washington, DC, Internships. (4) (Same as History M195DC, Political Science M195DC, and Sociology M195DC.) Tutorial, four hours. Limited to junior/senior CAPP program students. Internships in Washington, DC, through Center for American Politics and Public Policy. Students meet on regular basis with instructor and provide periodic reports of their experience. Individual contract with supervising faculty member required. P/NP grading.

196. Research Apprenticeship in Public Affairs. (2 to 4) Tutorial, three hours per week per unit. Limited to juniors/seniors. Research apprenticeship for upperdivision students under guidance of faculty mentor. May be repeated for credit. Individual contract required. P/NP grading.

198A-198B-198C. Honors Research in Public Affairs. (4-4-4) Tutorial, to be arranged. Limited to senior Public Affairs majors. Requisites: courses 115, 116. Course 198A is requisite to 198B, which is requisite to 198C. Development and completion of research project and thesis under direct supervision of faculty member. Individual contract required. Letter grading.

199. Directed Research or Senior Project in Public Affairs. (2 to 6) Tutorial, to be arranged. Limited to juniors/seniors. Supervised individual research or investigation under guidance of faculty mentor. Culminating paper or project required. May be repeated for maximum of 16 units. Individual contract required. P/NP or letter grading.

Interdisciplinary Minor

Public Health Interdisciplinary Minor

Jonathan and Karin Fielding School of Public Health

16-059 Center for Health Sciences

Box 951772

Los Angeles, CA 90095-1772

Public Health Minor

310-825-5524

Shane S. Que Hee, PhD, Chair

Faculty Committee

Deborah C. Glik, PhD (Community Health Sciences)
Roger Detels, MD, MS (Epidemiology)
Gang Li, PhD (Biostatistics)
Naderpour, MSPH, PhD (Health Policy and Management)
Shane S. Que Hee, PhD (Environmental Health Sciences)

Scope and Objectives

The Public Health minor is designed for students who wish to learn more about core public health functions, including the assessment and monitoring of the health of communities and populations at risk to identify health problems and priorities, the formulation of public policies designed to solve identified local and national health problems and priorities, the assurance that all populations have access to appropriate and cost-effective care, and the evaluation of the effectiveness of that care.

Undergraduate Study

Public Health Minor

To enter the Public Health minor, students must be in good academic standing with an overall grade-point average of 2.0 or better, have completed 90 or more units, and apply to the Fielding School of Public Health Student Affairs Office, A1-269 Center for Health Sciences. Enrollment is competitive and based on grade-point average and an application essay.

Required Upper-Division Courses (28 units): Seven courses, including Biostatistics 100A, Community Health Sciences 100, Environmental Health Sciences 100, Epidemiology 100, Health Policy and Management 100. Public Health 150 (must be taken during the first term of enrollment in the minor), and one elective course to be selected from Biostatistics 100B, Community Health Sciences 91, 130, 132, M140, 180, 181, Health Policy and Management M110, C121, Public Health S3, M106, or M515. Transfer credit for any of the above is subject to school approval.

A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor. Each minor course must be taken for a letter grade, and students must have a minimum grade of C (2.0) in each and an overall grade-point average of 2.0 or better in the minor. Successful completion of the minor is indicated on the transcript and diploma.
Public Health

Scope and Objectives

The profession of public health is responsible for the protection, preservation, and promotion of the health of communities and populations. Although the health problems of today differ from those of the past and of the future, the professionals who make up the field need to be trained to respond to broad community problems utilizing the basic ideas of prevention of disease and promotion of well-being. This goal can be achieved only with an understanding of the health status of the population through data gathering and analysis, as well as knowledge of the complex relationships between disease process in the social and biological environment of the community.

The field of public health today needs practitioners from many disciplines. Candidates for graduate study may come from a wide variety of academic backgrounds, training, or experience, including both the natural and social sciences.

Graduate Study

Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Division website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Graduate Degrees

The Fielding School of Public Health offers two schoolwide degrees, Master of Public Health (MPH) and Doctor of Public Health (DrPH); and MS and PhD degrees in Biostatistics, Community Health Sciences, Environmental Health Sciences, Epidemiology, and Health Policy and Management.

One interdepartmental degree program—the PhD in Molecular Toxicology—is also available.

Eight concurrent degree programs (Community Health Sciences MPH/Urban Planning MURP, Environmental Health Sciences MPH/Urban Planning MURP, Public Health MPH/African Studies MA, Public Health MPH/Asian American Studies MA, Public Health MPH/Law JD, Public Health MPH/Management MBA, Public Health MPH/Public Policy MPP, Public Health MPH/Social Welfare MSW) and two articulated degree programs (Public Health MPH/Latin American Studies MA, Public Health MPH/Medicine MD) are also offered.

Public Health

Lower-Division Courses

10. Introduction to Public Health. (4) Seminar, three hours. Designed for lower-division students. Introduces to range of topics, issues, and frameworks to help students understand current public health issues and public health systems, policies, and practices. P/NP or letter grading.

19. Field Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of inquiry at UCLA. P/NP grading.


99. Student Research Program. (1 to 2) Tutorial (supervised research or other scholarly work), three hours per week per unit. Entry-level research for lower-division students under guidance of faculty mentor. Students must be in good academic standing and enrolled in minimum of 12 units (excluding this course). Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP grading.

Upper-Division Courses

M106. Health in Chicano/Latino Population. (4) (Same as Chicana and Chicano Studies CM106.) Lecture, four hours; discussion, one hour. Designed for juniors/seniors. Examination of Chicano/Latino health status through the lens of Chicana/o studies and Chicana/o/Chicano concerns. Use of public health, historical, cultural, economic, and political processes affecting organization and accessibility of healthcare in transitional and disadvantaged communities. Fieldwork required. Letter grading.


M151. Healthcare in Transitional Communities. (4) (Same as Sociology M112.) Lecture, three hours; discussion, one hour. Analysis of social, cultural, economic, and political processes affecting organization and accessibility of healthcare in transitional and disadvantaged communities. Fieldwork required. Letter grading.

M160A. Health Outreach and Education for At-Risk Populations. (4) (Same as Medicine M160A.) Lecture, two hours; discussion, two hours. Possible field observations. First in series of courses to explore prevention of disease in at-risk populations, clinical services and referrals for disadvantaged, and effects of low socioeconomic status on academic achievement, career, and family. Lectures by faculty and practitioners, with field visits. P/NP or letter grading.

M160B. Health Outreach and Education for At-Risk Populations. (4) (Same as Medicine M160B.) Lecture, two hours; discussion, two hours. Requisite: course M160A. Second in series of courses to explore prevention of disease in at-risk populations, clinical services and referrals for disadvantaged, and effects of low socioeconomic status on academic achievement, career, and family. Lectures by faculty and practitioners, discussion groups, and field activities including health education. P/NP or letter grading.

188SA. Individual Studies for USIE Facilitators. (1) Tutorial, to be arranged. Enforced corequisite: Honors Collegium 101E. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor to discuss selected USIE seminar topic, conduct preparatory research, and begin preparation of syllabus. Individual contract with faculty mentor required. May not be repeated. Letter grading.

188SB. Individual Studies for USIE Facilitators. (1) Tutorial, to be arranged. Enforced corequisite: Honors Collegium 101E. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor while facilitating USIE 88S course. Individual contract with faculty mentor required. May not be repeated. Letter grading.

Graduate Courses

200A-200B. Foundations in Public Health. (8-8) Lecture, eight hours. Introduction to foundational concepts, definitions, historical milestones, and methods related to five core disciplines of public health. Using traditional lecture presentations, active-learning case-based classroom discussions, lab sessions, and community projects, students learn essential knowledge about public health as well as skills needed to be effective public health professional, including oral and written presentation skills for relevant audiences, data analytic and presentation skills, and multidisciplinary teamwork building skills for students from throughout school of public health. Letter grading.

M273. Responsible Conduct of Research in Global Health. (2) (Same as Epidemiology M273.) Lecture, two hours. Requisite: Community Health Sciences 200. Introduction to fundamental principles of public health ethics, current ethical procedures, guidelines, and requirements, and ethical issues facing public health professionals working in developing countries. History of public health issues, unique ethical issues of research in developing countries, analysis of ethical implications of informed consent, responsibility to study community, mechanisms of study approval, role of funders, and role and responsibilities of review boards. S/U or letter grading.

299. Strategies for Success for Doctoral Students. (2) Seminar, two hours. Interactive seminar, with focus on research process, tips for success in academia, and important tools for leadership designed for all doctoral students in School of Public Health. S/U grading.

475. Pedagogy: Essential Skills and Innovative Strategies. (2) Seminar, one hour. Designed for School of Public Health doctoral students. Interactive seminar with focus on developing teaching materials for courses and acquisition of skills and tools that help students to become successful and innovative instructors. Active learning methodologies and competencies-based approach to instruction. S/U or letter grading.

490. Public Speaking Mastery for Public Health Professional. (2) Lecture, two hours. Lectures with in-class exercises, or in-class presentations followed by coaching feedback. Topics focus on developing range of communication skills necessary for students to become confident and effective public health professionals. Enforced corequisite: Honors Collegium 101E. Limited to public health graduate students. Master’s and doctoral students in programs housed in School of Public Health who are interested in learning how to prepare and deliver impactful, compelling presentations with confidence and professionalism are encouraged to enroll. S/U grading.

495. Preparation for Teaching Public Health. (2) Seminar, two hours. Designed for graduate students. Prepares individuals who will serve as teaching assistants for courses in Fielding School of Public Health. Study of methodologies in teaching public health, including implementing active learning strategies, effectively communicating goals for student learning, developing course materials that are consistent with expectations for student learning, creating inclusive teaching environment, and dealing with difficult situations. S/U grading.
Scope and Objectives

The Department of Public Policy is an interdiscipli- nary unit composed of faculty members from various disciplines, some of whom hold joint appointments in other UCLA departments. Its goal is to foster an understanding of the theory and practice of public policy in the many fields in which it applies. Examples include education, health care, unemployment and training, drug policy and crime, economic development, national security, and the environment. The department offers the Master of Public Policy (MPP) degree and participates in the undergraduate minor in Public Affairs.

The MPP degree program is designed to train professionals in both public- and private-sector policy analysis and implementation, and offers coursework in such areas as microeconomics, statistics, political processes, and public and nonprofit management. Concurrent degree programs allow students to combine study for an MPP with work toward a JD in the School of Law, an MBA in the Anderson Graduate School of Management, an MD in the Geffen School of Medicine, an MPH in the Fielding School of Public Health, or an MSW in the Department of Social Welfare.

The undergraduate minor in Public Affairs familiarizes students with key issues in public policy. Both programs have a heavy applied orientation. For additional information on the minor, see Public Affairs in this chapter.

Graduate Study

Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Division website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Graduate Degree

The Department of Public Policy offers the Master of Public Policy (MPP) degree. Five concurrent degree programs (Public Policy MPP/Law JD, Public Policy MPP/Management MBA, Public Policy MPP/Medicine MD, Public Policy MPP/Public Health MPH, and Public Policy MPP/Social Welfare MSW) are also offered.

Public Policy

Lower-Division Courses

10A. Introduction to Public Policy. (5) Lecture, three hours; workshops and outside study, three hours. Overview of principal topics of contemporary policy analysis, developing their applications with examples from instructor’s own research, visitors, small student projects, or field trips. P/NP or letter grading.

10B. California Policy Issues. (5) Lecture, three hours; outside study, nine hours. Application of policy analysis to California issues. Guest lectures from practitioners and academics along with readings and videos. Student written reports and oral presentations required. Letter grading.

10C. Public Policy for Crime, Cannabis, and Other Drugs. (5) Lecture, three hours; outside study, twelve hours. Application of policy analysis, including critical analysis, problem solving, and substantive policy research, to develop knowledge and understanding of drug and crime policy, with focus on opioids. Guest lectures by instructors and guest academics and practitioners, with readings from academic literature and policy reports. P/NP or letter grading.

10D. Public Policy and Urban Homelessness. (5) Lecture, three hours; outside study, films, book review, and field/volunteer work, nine hours. Application of policy analysis to issues and solutions concerning homelessness. Guest lectures from local policymakers. P/NP or letter grading.

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

89. Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to lower-division lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

89HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors and departmental honors programs. Designed as adjunct to lower-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

99. Student Research Program. (1 to 2) Tutorial (supervised research or other scholarly work), three hours per week per unit. Entry-level research for lower-division students under guidance of faculty mentor. Students must be in good academic standing and enrolled in minimum of 12 units (excluding this course). Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP grading.

Upper-Division Courses

105. Leadership in Public Interest. (4) Lecture, three hours. Examination of prevailing models, theories, and practices of leadership in public settings and application of them through case studies, films, and situational articles. Participation in group projects and discussions designed to improve understanding of role of leadership in mobilizing people groups to do difficult work. Introduction to literature and theory on leadership, examination of leadership and group dynamics, and challenge of leadership in times of stress and change. Letter grading.

113. Politics of U.S. Health Policy. (4) Lecture, three hours. Every modern nation faces similar health system challenges, such as promoting health and longevity, providing effective treatments, balancing benefits and burdens of medical technology, and controlling healthcare costs that grow faster than national income. U.S. seems uniquely disadvantaged with lower life expectancy, problematic quality of medical services, lack of insurance for millions, and highest costs in world, hampering families, businesses, and government. What political dynamics produced this result and influence possibility and direction of ongoing policy change? Examination of meaning of health and healthcare; international experience; current status, organization, and financing of U.S. health care system; and factors that affect national health policymaking, including comprehensive healthcare reform; framing of problems, role of public opinion, influence of interest groups, composition and organization of Congress, and opportunities for and applications of presidential leadership. P/NP or letter grading.

C115. Environmental and Resource Economics and Policy. (4) Lecture, three hours. Requirements: Economics 11, 143. Survey of ways economics is used to define, analyze, and resolve problems of environmental management. Overview of analytical questions
addressed by environmental economists that bear on public policies. Concurrently scheduled with course CM250. Letter grading.

M120. Race, Inequality, and Public Policy. (4) (Same as African American Studies M120.) Lecture, three hours; discussion, one hour. Backgrounds and impacts of social, political, and economic policies. Social, political, or urban studies preferred but not required. Survey course to examine major debates and current controversies concerning public policy responses to social problems in urban America. Letter grading.

M127. Understanding Public Issue Life Cycle. (4) (Same as Political Science M142D.) Lecture, three or four hours; discussion, one hour (when scheduled). Recommended preparation: Political Science 10. Letter grading. Limited to 20 students. Designed as adjunct to general study in regularly scheduled meetings with faculty member to discuss selected USIE seminar topic, conduct preparatory research, and begin preparation of syllabus. Individual contract with faculty mentor required. May not be repeated. Honors contract noted on transcript. P/NP or letter grading.

M152. Local Policymaking for Urban Planners. (4) (Same as American Studies M152.) Seminar, three hours. Study of complex arena of public policy and ethical concerns in planning and community development; necessity to balance demands from interest groups including public, business and nonprofit sectors, general public; and interrelationship between local government implementation and federal urban laws and regulations. Letter grading.

CM182. Social Development and Public Policy. (4) (Same as Electrical and Computer Engineering CM182 and Public Affairs M184.) Lecture, three hours. Recent and continuing advances in science and technology are raising profoundly important public policy issues. Consideration of selection of critical policy issues, each of which has substantial ethical, social, economic, political, scientific, and technological aspects. Concurrently scheduled with course CM282. Letter grading.

187. Research Seminar: Public Policy. (4) Seminar, three hours; outside study, nine hours. Requisite: course 10A or Public Affairs 10. Limited to and required of seniors in Public Affairs minor. Production of research project that examines in depth one particular policy issue in its social context, including political pressures involved and problems of implementation. Emphasis on development of data analysis and analysis, conceptualization, and written analysis and presentation. Letter grading.

188SA. Individual Studies for USIE Facilitators. (1) Tutorial, to be arranged. Enforced corequisite: Honors Colloquium 101E. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor to discuss selected USIE seminar topic, conduct preparatory research, and begin preparation of syllabus. Individual contract with faculty mentor required. May not be repeated. Letter grading.

188SB. Individual Studies for USIE Facilitators. (1) Tutorial, to be arranged. Enforced requisite: course 188SA. Enforced corequisite: Honors Colloquium 101E. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor to finalize course syllabus. Individual contract with faculty mentor required. May not be repeated. Letter grading.

188SC. Individual Studies for USIE Facilitators. (2) Tutorial, to be arranged. Enforced requisite: course 188SB. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor while utilizing USIE 885 course. Individual contract with faculty mentor required. May not be repeated. Letter grading.

189HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors and departmental honors programs. Designed as adjunct to upper-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

191A. Variable Topics Research Seminars: Public Policy. (4) Seminar, three hours; outside study, nine hours. Examination of particular subfields of policy studies (e.g., international policy, crime policy, policy history) in depth, with specific topics to be identified by instructor. Reading, discussion, and development of culminating project. Must be taken for credit if applied toward Public Affairs minor. May be repeated for credit with topic change. P/NP or letter grading.

CM191B. Variable Topics Seminar: Public Policy. (4) Formerly numbered C191B. (Same as Public Affairs M191F) Seminar, three hours; outside study, nine hours. Emerging issues in public policy. May be repeated for credit. Concurrently scheduled with course C291B. P/NP or letter grading.

191C. Variable Topics Research Seminars: Public Policy. (2) Seminar, two hours; outside study, four hours. Examination of particular subfields of policy studies (e.g., public policy, policy history) in depth, with specific topics to be identified by instructor. Reading, discussion, and development of culminating project. Must be taken for credit if applied toward Public Affairs minor. May be repeated for credit with topic change. P/NP or letter grading.

197. Individual Studies in Public Policy. (2 or 4) Tutorial, four hours. Preparation: 3.0 grade-point average, junior or senior standing, and one course from Mathematics 3A, Mathematics 3B, or 31A. Basic concepts of microeconomics, with emphasis on their application to actual situations and the use in problem solving and focus on theories of firms and markets. Extensive use of differential calculus. Letter grading.

205. Institutional Leadership and Public Manager. (4) Lecture, three hours; outside study, nine hours. Examination of leadership role of executives in public service as they lead and manage in tough day-to-day world of politics and intensive public scrutiny. Heavy emphasis on case studies that focus on what public managers do, political and organizational environment in which they find themselves, and skills they need both inside and outside their organization to get things done with high degree of competence and integrity. Letter grading.

206. Political Economy of Policy Adoption and Implementation. (4) Lecture, three hours; outside study, nine hours. Analysis of how policy is formed, adopted, and implemented. How policies are formulated, by whom, and how policy agencies attempt to define relationships between politicians, bureaucrats, lobbyists, and media experts. Letter grading.


209. Management in the 21st Century. (4) Lecture, three hours; outside study, nine hours. Focus on practical management skills to prepare students for workplace. Examination of design, management, and leadership of teams in organizational settings, decision-making strategies in face of challenges, and negotiation as invaluable skill. Examples from public and private sectors, as well as work experiences through exercises, cases, and simulations. Letter grading.

210. Methods of Policy Analysis. (4) Lecture, three hours; outside study, nine hours. Preparatory course that precedes three-term 298A, 298B, 298C sequence in which they learn how to conduct major projects and papers that are case studies of policy evaluation and implementation and are equivalent to professional master's theses. Papers build on prior core courses, internship experience, and policy cluster courses. Letter grading.

M212. Child Welfare Policy. (4) (Same as Social Welfare M230J.) Lecture, three hours. Development of social policy as it affects families and children from different cultural backgrounds and as it is given form in public child welfare system. Examination of development of infrastructure to support needs of children and families. S/U or letter grading.

M213. Mental Health Policy. (4) (Same as Social Welfare M230K) Lecture, three hours. Examination of evolution of social policy and services for mentally ill, with emphasis on political, economic, ideological, and sociological factors that affect views of mentally ill and services they are provided. S/U or letter grading.


M215. Health Policy. (4) (Same as Social Welfare M230M.) Lecture, three hours. Introduction to contemporary issues in healthcare financing and delivery, providing historical perspective on emergence of these is-
sues: Examination of major public programs and their relationship to issues of access and cost. S/U or letter grading.

M216. Public Policy for Children and Youth. (4) (Same as Social Welfare M290N.) Lecture, three hours. Policy issues that affect children and adolescents in relation to their interaction with schools and community, with emphasis on impact of policy across federal, state, and local levels. S/U or letter grading.

M217. Graduate Seminar in Environmental Economics and Policy. (3) (Same as Environmental Health Sciences M217.) Seminar, four hours. Preparation: undergraduate-level statistics, basic undergrad-uate microeconomics. Introduction to applied scholar-ship in economics and policy. Enables students to become more proficient consumers and producers of social science research that explores questions of environmental policy and sustainability broadly construed. Topics include health and eco-nomic impacts of climate change, adaptation to cli-imate change, efficient and equitable design of envi-ronmental policies (e.g., cap and trade, carbon taxes). Development of detailed empirical research proposal and short presentation. Letter grading.

M218. Research Design and Methods for Social Policy. (4) (Same as Urban Planning M204.) Lecture, three hours; outside study, nine hours. Limited to graduate students. Course intended to develop more sophisticated consumers and producers of qualitative and quantitative policy research. In first half of course, formal principles of research design; in second half, various data collection methods, including ethnography, raphy, interviewing, and survey design. Letter grading.

M220. Transportation, Land Use, and Urban Form. (4) (Same as Urban Planning M250.) Lecture, three hours. Historical evolution of urban form and transpor-tation systems, intrametropolitan location theory, re-cent trends in urban form, spatial mismatch hypoth-esis, jobs/housing balance, transportation in strong central city and polycentric city, neotraditional town planning debate, rail transit and urban form. Letter grading.

M221. Travel Behavior Analysis. (4) (Same as Urban Planning M253S.) Lecture, three hours. Requisites: courses 201 and 203, or Urban Planning 207 and 220B. Descriptions of travel patterns in metropolitan areas, recent trends and projections into future, overview of travel forecasting methods, trip generation, trip distribution, mode choice, traffic assignment, costs, critique of traditional travel forecasting methods and new ap-proaches to travel behavior analysis. Letter grading.

M222. Transportation Economics, Finance, and Policy. (4) (Same as Urban Planning M256.) Lecture, three hours. Historical evolution of transportation finance and economics; concepts of efficiency and equity in transpor-tation finance; historical evolution of highway and transit finance; current issues in highway finance; pri-vate partnerships, toll roads, road costs and cost allocation, truck charges, congestion pricing; current issues in transit finance; transit fare and subsidy policies, contracting and privatization of transit services. Letter grading.

M223. Transportation and Environmental Issues. (4) (Same as Urban Planning M258.) Lecture, three hours. Regulatory structure linking transportation, air quality, and land use, and policy analysis of transportation finance and measures; alternative fuels and electric vehicles; cor-porate average fuel economy and global warming is-sues; growth of automobile worldwide fleet; automo-bile in sustainable development, critique of critique of traditional travel forecasting methods and new ap-proaches to travel behavior analysis. Letter grading.

M224A. Introduction to Geographic Information Sys-tems. (Formerly numbered M224A.) Lecture, three hours. Preparation: one-semester statistics course, familiarity with one packaged statistics pro-gram. Principles of Geographic Information Systems (GIS) and applied techniques of using spatial data for mapping and analysis. Topics include data quality, data manipulation, spatial analysis, and information systems. Use of mapping and spatial analysis to ad-dress planning problem. Letter grading.

M224B. Advanced Geographic Information Systems. (Formerly numbered M224B.) Studio, three hours. Requisite: course M224A. Advanced topics in geo-graphic information systems (GIS) utilizing geopro cessing tools in ArcMap, map design, and spatial analysis. Letter grading.

M225. Education Policy and Education Inequality. (4) Seminar, three hours; outside study, nine hours. Lim-ited to graduate students. Examination of policies that may reduce socioeconomic and ethnic disparities in educational success. Topics include international and national comparisons of educational outcomes, pri-vate and public school choice, school accountability policies, international trends in educational quality, parenting and preschool interventions, and supplemental educational services. Letter grading.

M227. Politics, Power, and Philanthropy. (4) (Same as Social Welfare M290S and Urban Planning M287.) Lecture, three hours; outside study, nine hours. Use of political economy perspective to analyze forces that have shaped rise and characteristics of nonprofit sector and its constituent elements. Examination of social history of nonprofit sector in U.S. Exploration of legal and policy environments and distinct organiza-tional forms. Comparative perspective between U.S. and other countries. S/U or letter grading.

M228. Leadership, Development, and Governance of Nonprofit Organizations. (4) (Same as Social Wel fare M241E and Urban Planning M288.) Lecture, three hours; outside study, nine hours. Designed for gradu-ate students. Various patterns of community action for governance, philanthropy, social research and field experience directed toward study of social prob- lems within context of community planning; emerging patterns of physical, economic, and social planning within framework of social change theory. Letter grading.

M228B. Global Public Affairs: Governing in Inter-connected World. (4) (Same as Social Welfare M215 and Urban Planning M231.) Lecture, three hours; out-side study, nine hours. Focus on inter-play between three major institutional complexes of modern, globalizing societies and organizations that operate within them: state, market, and civil society. Study moves between abstract theory and concrete examples, offers sense of where these institutions and organizations have come from, and helps chart their present trajectories. From perspective of governance, assessment of roles and scope of public and non-public institutions, and organizations to address today’s challenges. S/U or letter grading.

M229. Law and Management of Nonprofit Organiza-tions. (Same as Urban Planning M225.) Lecture, three hours. Introduction to important legal, financial, and management issues confronting nonprofit organi-zations. Topics include how to start nonprofit tax-exempt organizations; understanding tax-exempt status under IRC Code Section 501(C3), corpo-rate governance, political and legislative activity restrictions, and strategic planning, fundraising, non-profit accounting, and employment law. S/U or letter grading.

233. Employment Issues in California. (4) Lecture, three hours; outside study, nine hours. Designed for graduate students. Drawing on resources of UCLA Business School and Labor Center to generate general features of California labor market, analysis of employ-ment fluctuations and forecasting techniques in-cluding linkages between employment fluctuations in California and elsewhere in the country, and social is-sues related to labor market. Letter grading.

M240. Theories of Regional Economic Develop-ment. I. (4) (Same as Geography M230A and Urban Planning M228B.) Lecture, three hours; discussion, one hour. Introduction to theories of location of eco-nomic activity, trade, and other forms of contact be-tween regions, process of regional growth and de-cline, reasons for differences between levels of economic develop-ment, relations between more and less developed regions. Letter grading.

M241. Introduction to Regional Planning. (4) (Same as Urban Planning M230.) Lecture, three hours. Crit-ical and historical survey of evolution of regional plan-ning theory and practice, with particular emphasis on relations between regional planning and develop-ments within Western social and political philosophy. Major concepts include regions and regionalism, terri-torial community, and social production of space. Letter grading.

M242. Community Development and Housing Poli-cies: Roles of State, Civil Society, and Nonprofits. (4) (Same as Social Welfare M290U and Urban Plan ning M275.) Lecture, three hours; outside study, nine hours. Designed for graduate students. Examination of development and housing policies and their in fluence on decision makers and community organizations. Is problem housing or economic development? Should interven-tions be targeted toward inner cities or national markets or through neighborhood strategies? What lessons can be learned from experiences of other countries? Letter grading.

M244. Shared Mobility Policy and Planning. (4) (Formerly numbered M224.) Studio, three hours; discussion, nine hours. Shared mobility systems, with particular focus on public transit. Overview of shared mobility policy and regulations. Contemporary governance is complex set of laws, rules, and regulations involving rights and re-sponsibilities of three institutional complexes of modern societies (state, market, and civil society), in-stitutions that guide them, and the political, legal and economic systems that they command. Actors often reach across systemic, jurisdictional, and national boundaries; their relation-ships can be cooperative, neutral, or fraught with con-lict and governance can be highly complex and uncertain. These dynamics involve fundamental challenges and, consequently, require significant governance readi-ness. Lectures, debates, in-class exercises, and stu-dent presentations. Exploration of several issues in more detail, e.g., types of state capacities, democ-acy, crisis management, governance innovation, and specific policy fields such as infrastructure or global fi-nance. S/U or letter grading.

M247B. Comparative Perspectives on States, Mar-kets, and Civil Society. (4) (Same as Social Welfare M291F and Urban Planning M290B.) Lecture, two and one half hours. Governance is about solving and manag-ing societal problems, such as climate change, pov-erty, migration, security, mobility, pollution, or trade re-lations. Contemporary governance is complex set of laws, rules, and regulations involving rights and re-sponsibilities of three institutional complexes of modern societies (state, market, and civil society), insti-tutions that guide them, and the political, legal and economic systems that they command. Actors often reach across systemic, jurisdictional, and national boundaries; their relation-ships can be cooperative, neutral, or fraught with con-lict and governance can be highly complex and uncertain. These dynamics involve fundamental challenges and, consequently, require significant governance readi-ness. Lectures, debates, in-class exercises, and stu-dent presentations. Exploration of several issues in more detail, e.g., types of state capacities, democ-acy, crisis management, governance innovation, and specific policy fields such as infrastructure or global fi-nance. S/U or letter grading.


251. Public Budgeting and Finance. (4) Lecture, three hours; outside study, nine hours. Limited to graduate students. How financial resources are allo-cated through budget processes at federal, state, and local levels. How can government officials and other stakeholders be aware of how much of each level of government finances its operations and capital investment programs, with particular attention to Cali-fornia. Students are organized into small groups to fa-cilitate review of assigned readings and to report key information to class. Based on assigned readings, de-
velegance of budget strategy matrix outlining best practices budget strategies to use in various resources availability contexts. Letter grading.

M253. Lesbian, Gay, Bisexual, and Transgender Law and Public Policy Research. (4) (Same as Law M675.) Lecture, three hours. Exploration of relevance of public policy research to lesbian, bisexual, and transgender (LGBT) legal issues. Topics include LGBT identity and demographics, legal recognition of same-sex couples, parenting, workplace discrimination, transgender rights, and the meaning of rights and liberties of LGBT youth and safe schools, LGBT health disparities, and Don’t Ask, Don’t Tell. Discussion of social science research that has informed various areas of LGBT law. Themes include doctrinal and other reasons why research has become more central to LGBT legal advancements in past decade, different types of public policy research, limitations of current data and research on LGBT issues, difficulties in translating social science research into evidence in courtroom, impact that dominant LGBT rights frame of equality has on social science research, challenges in conducting objective research, and effective presentation of social science research before legislators, judges, juries, media, and other audiences. S/U or letter grading.

M257. Medicare Reform. (4) (Same as Health Policy M262.) Lecture, three hours; outside study, nine hours. Designed for graduate students. Analytical and managerial skills learned earlier to be used to analyze problems with existing Medicare program and to develop specific policy recommendations featuring programs of government to accommodate coming pressures generated by retirement of baby-boom generation. Letter grading.

M258. Microeconomic Theory of Health Sector. (4) (Same as Health Policy M258.) Lecture, four hours; discussion, two hours. Role of advances in microeconomics; coupling of science, technology, and organization. Factors affecting invention and innovation; transfer of process and as element of goal-oriented organization. Letter grading.

M259. Healthcare Policy and Finance. (4) (Same as Health Policy M269.) Seminar, three hours; outside study, nine hours. Exploration of demand for health insurance, policies for public insurance (Medicaid and Medicare), uninsured, and health insurance reform. Examination of effects of managed care on health and costs, consumer protection movement, and rise of competitive healthcare markets. Letter grading.

M270. Principles and Economic Development in Indigenous Communities. (4) (Same as American Indian Studies M207.) Seminar, two hours; discussion, one hour. Limited to graduate students. Familiarization with fundamental concepts, theories, and principles of economic development. Focus on indigenous communities broadly and contrasted with other regions, countries, and communities. Introduction to important concepts such as opportunity cost, economic trade-offs, adverse selection, moral hazard, and discount rates through use of existing research and case studies. These basic concepts are important for graduate students who will be analyzing and evaluating research conducted on and for indigenous peoples and governments. S/U or letter grading.

M280A. Research and Development Policy. (4) (Same as Management-PhD M251.) Lecture, three hours. Examination of research and development as process and as element of goal-oriented organization. Factors affecting invention and innovation; transfer of technology; organizational and behavioral considerations; coupling of science, technology, and organizational goals; assessing of and forecasting technological futures. S/U or letter grading.

M280B. Growth, Science, and Technology. (4) (Same as Management-PhD M262.) Lecture, three hours. Economic growth and change. Role of advances in science and technology, and actions of maximizing innovators and factors impinging on their behavior. How technological change (for or against) can transform new industries or transform nature of and population of firms in existing industries. S/U or letter grading.


M292. Science, Technology, and Public Policy. (4) (Same as Electrical Engineering CM292.) Lecture, three hours. Recent and continuing advances in science and technology are raising profoundly important issues for public policy issues. Consideration of selection of critical policy issues, each of which has substantial ethical, economic, political, scientific, and technological aspects. Concurrently scheduled with course CM182. Letter grading.

M296. Policy Analysis of Emerging Environmental Technologies. (4) (Same as Urban Planning M296.) Lecture, three hours. Acquisition and utilization of economic, financial, planning, and policy analytic tools needed to evaluate factors that drive market adoption from early to middle market phases. Top-down, electric vehicle, and energy efficiency as focal examples, with emphasis on role of policy and planning initiatives intended to spur adoption. Letter grading.

M297A. Special Topics in Public Policy. (4) (Formerly numbered 297D.) Seminar, three hours. Emerging issues in public policy. May be repeated for credit. Letter grading.

M291B. Variable Topics Seminar: Public Policy. (4) Seminar, three hours; outside study, nine hours. Emerging issues in public policy. May be repeated for credit. Concurrently scheduled with course CM191B. S/U or letter grading.

M291C. Special Topics in Public Affairs. (4) (Same as Social Welfare M203X and Urban Planning M201A.) Seminar, three hours; outside study, nine hours. Advanced seminar on emerging issues across public policy, social policy, and urban planning. May be repeated for credit. S/U or letter grading.

M295. Law and Poor. (4) (Same as Social Welfare M209R and Literacy M295.) Lecture, three hours. Designed for graduate students. Study of major income-maintenance programs in U.S., with emphasis on interaction of moral attitudes toward poor and structure and implementation of law, policy, and administration. Current reform consensus and major reforms. Letter grading.

M296A. Voting Rights Policy and Law I (2) (Formerly numbered 2967E.) (Same as Social Science M460C.) Clinic, three hours. Seminar, three hours. Students receive training in techniques taken from perspective of social science research, civil rights, and voting rights. Exposes students to voting rights act theory, case law, history, research, and implementation experience across campus provide their perspective on how to study, research, and document various aspects related to voting rights. Includes factors such as history of discrimination against minority group in areas of employment, education, housing, and political representation. Students learn and implement in-depth study of methodology and statistical approach to document presence or absence of voting dilution or vote denial in different jurisdictions. Discussion of history and legal principles of federal Voting Rights Act and Voting Rights Act led by leading voting rights attorney. May be repeated for credit. S/U or letter grading.

M296B. Voting Rights Policy and Law II. (2) (Same as Social Science M460B.) Clinic, three hours. Required course. Students take training from perspective of social science research, civil rights, and voting rights. Exposes students to voting rights act theory, case law, history, research, and implementation. Faculty guest experts from across campus provide their perspective on how to study, research, and document various aspects related to voting rights. Includes factors such as history of discrimination against minority group in areas of employment, education, housing, and political representation. Focus on practical aspects of voting rights law. Students learn in greater detail legal theory relevant to bringing successful voting rights challenge, and how to assemble and present social science evidence. Students real case law on prior Voting Rights Act decisions, review accompanying expert reports, and write in teams on aspects of lawsuit. S/U or letter grading.

M296C. Voting Rights Policy and Law III. (2) (Same as Social Science M460C.) Clinic, three hours. Required course. Students take training from perspective of social science research, civil rights, and voting rights. Exposes students to voting rights act theory, case law, history, research, and implementation. Faculty guest experts from across campus provide their perspective on how to study, research, and document various aspects related to voting rights. Includes factors such as history of discrimination against minority group in areas of employment, education, housing, and political representation. Students continue work on all aspects of voting rights cases including preparation of expert report, legal argumentation and citations, depictions, and other case-related matters. S/U or letter grading.

M27A. Public Policy Special Topics. (2 or 4) (Formerly numbered 297B.) Lecture, three hours. Study of emerging issues in public policy. May be repeated for credit. S/U grading.

M27B. Public Policy Analysis Lectures. (2) (Formerly numbered 297C.) Lecture, two hours. Limited to second-year MPP students. Venue for policymakers, practitioners, and academics to present, discuss, and analyze current policy questions. Attending, formally analyzing, and engaging with policy professionals at these lectures adds to pedagogical and intellectual maturity of students to better understand of broad range of policy-related topics. S/U grading.

M27C. Public Policy Seminar Series. (2) (Formerly numbered 297D.) Seminar, two hours. Weekly social science research lectures covering range of policy-relevant topics and discussion of research findings with professor. Examination of quality and relevance of research and connections between research, public policy, and public health, and real-world policy problems. S/U grading.

M27D. Public Policy Student-Initiated Special Topics. (2) Seminar, three hours. Student-initiated and facilitated special topics on emerging issues in public policy. May be repeated for credit. S/U grading.

M28A. Applied Policy Project I. (2) Seminar, 90 minutes; outside study, four and one-half hours. Required course. Course 210. Limited to MPP students. First course of year. Students develop sequences designed by their teams and are fully prepared to launch their projects at start of Winter Quarter. Students form teams that are assigned to seminars and instructors, identify clients, develop concept and refine project, motivating their projects, develop and refine basic work plans, learn about various methods of data collection, and complete and submit all necessary forms required for human subjects research. S/U grading.

M28B. Applied Policy Project II. (2) Seminar, three hours; outside study, 15 hours. Preparation: completion of MPP core curriculum, two policy cluster courses, and internship (unless waived). Requisite: course 298A. Second course in three-term sequence in which students prepare major public policy projects and papers that are case studies of policy evaluation and research generation and analysis of professional master’s theses. Papers build on prior core courses, internship experience, and policy cluster courses. Letter grading.

M28C. Applied Policy Project III. (2) Seminar, two hours; outside study, 15 hours. Preparation: completion of MPP core curriculum, two policy cluster courses, and internship (unless waived). Requisite: course 298B. Third course in three-term sequence in which students complete research and writing for their year-long projects, conduct oral presentations of their applied policy projects, and give written feedback on other student presentations. Letter grading.

375. Teaching Apprentice Practicum. (1 to 4) Seminar, to be arranged. Limited to MPP students. First course of year. Students work in teams and are fully prepared to launch their projects at start of Winter Quarter. Students form teams that are assigned to seminars and instructors, identify clients, develop concept and refine project, motivating their projects, develop and refine basic work plans, learn about various methods of data collection, and complete and submit all necessary forms required for human subjects research. S/U grading.
For more details on the Department of Radiological Sciences, see the department website.

**RADIATION ONCOLOGY**

David Geffen School of Medicine

8265 UCLA Morton Medical Building

Box 956951

Los Angeles, CA 90095-6951

Radiation Oncology

310-825-9775

Michael L. Steinberg, MD, Chair

Daniel A. Low, PhD, Vice Chair, Division of Medical Physics

Joanne B. Weidhaas, MD, Vice Chair, Division of Molecular and Cellular Oncology

Percy P. Lee, MD, Vice Chair, Education

Steve P. Lee, MD, PhD, Vice Chair, VA Services

Scope and Objectives

The Department of Radiation Oncology includes clinical divisions at the UCLA Medical Plaza and Reagan UCLA Medical Center, Santa Monica-UCLA Medical Center, and West Los Angeles VA Medical Center and includes the Division of Brachytherapy, Division of Molecular and Cellular Oncology, and Medical Radiation Physics. Laboratory, clinical, and translational research are facilitated at all locations.

The primary clinical mission of the department is the management of patients who have cancer. The purpose of using radiation therapy, rather than or in addition to surgery, is to preserve function and/or cosmetics while eliminating the cancer. Other activities include total body irradiation before bone marrow transplantation, stereotactic body radiotherapy, brachytherapy, and stereotactic radiosurgery for A-V malformations, meningiomas, and malignant intracranial lesions. Research interests include clinical trials, radiation biology, radiation modifiers, molecular biology, immunology, and applied physics. Knowledge of the disease in question, the comparative efficacy of radiation therapy and other methods, radiation biology and pathophysiology, and the physical characteristics of various radiations is essential.

The educational programs serve medical, dental, basic science (biology and physics), nursing, and radiation therapy students, and community and postgraduate physicians; there also is a four-year program for residents who are qualifying for certification in radiation oncology by the American Board of Radiology.

For more details on the Department of Radiation Oncology and courses offered, see the department website.

**Radiation Oncology**

**Lower-Division Courses**

19. Fiat Lux Freshman Seminars. (1) Seminar: one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

99. Student Research Program. (1 to 2) Tutorial (supervised research or other scholarly work), three hours per week per unit. Entry-level research for lower-division students under guidance of faculty mentor. Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP grading.

**Upper-Division Course**

199. Directed Research in Radiation Oncology. (2 to 8) Tutorial, two hours. Limited to juniors/seniors. Supervised individual research or investigation under guidance of faculty mentor. Culminating paper required. May be repeated for credit. Individual contract required. P/NP or letter grading.

**RADIOLOGICAL SCIENCES**

David Geffen School of Medicine

1638 Ronald Reagan Medical Center

Box 957351

Los Angeles, CA 90095-7351

Radiological Sciences

Residency Program, 310-267-8797

Fellowship Program, 310-267-8796

Fellowship e-mail

Dieter R. Enzmann, MD (Leo G. Rigler Professor of Radiological Sciences), Chair

Robert D. Suh, MD, Vice Chair, Education

Scope and Objectives

The medical student program in the Department of Radiological Sciences is designed to introduce students to the spectrum of diagnostic imaging modalities and their role in the clinical management of patients. It provides students with knowledge of essential radiographic anatomy and key imaging features of common diseases. The basic principles of all forms of diagnostic imaging pertaining to thoracic, musculoskeletal, gastrointestinal, genitourinary, cardiac, neuroradiology, mammography, pediatrics, emergency radiology, computed tomography, magnetic resonance imaging, ultrasound, and interventional radiology are provided. Students acquire interpretative skills by didactic instruction and interactive teaching sessions and through the use of Web-based teaching materials. A longitudinal core clerkship is offered during the third year, with a comprehensive examination.

Greater depth of experience is provided by the three weeks of elective clerkship offered to fourth-year medical students that emphasizes training in general diagnostic radiology, angiography/interventional radiology, neuroradiology, and pediatric radiology.

Scope and Objectives

The undergraduate major in Study of Religion equips students to understand and compare creatively the worldwide varieties of core convictions, stories, texts, rituals, and practices known collectively as religion. Students complete courses in a wide range of departments in which religious phenomena are analyzed, including anthropology, art history, Asian languages and cultures, classics, comparative literature, English, history, Near Eastern languages and cultures, philosophy, political science, and world arts and cultures/dance. Students can anticipate gaining versatile intellectual tools for approaching, analyzing, and appreciating the deep roots, human motivations, and history of the formation of religious traditions in their respective cultural contexts. Within this interdepartmental program, students may focus in depth on one or more specific religions. Students may wish to select this major in combination with a second major field, a minor, or related language study.

Undergraduate Study

The Study of Religion major is a designated capstone major. Students must complete an advanced seminar that provides unique opportunity to work closely with a faculty member on a focused topic of research. Through their capstone work students are expected to demonstrate their ability to plan and carry out a major project, apply subject matter and research methods knowledge to produce a paper or other research project, and organize information into a coherent and persuasive form for oral presentation to their peers.
Study of Religion BA
Capstone Major
Learning Outcomes
The Study of Religion major has the following learning outcomes:

• Demonstrated ability to plan a major project that concludes with writing a cogent and convincing document
• Application of knowledge of a wide-ranging bibliography and of methods of research to thoroughly prepare for seriously engaging an interviewee or for writing the prospectus describing the major project
• Development of skills essential to taking oral histories or doing field research in Los Angeles’ multicultural population
• Ability to organize research data into a coherent and persuasive form for oral presentation to peers
• Demonstrated empathy as a critic of a wide array of religious traditions, institutions, and practices

Preparation for the Major
Required: Study of Religion M4 or 11, and two courses from Ancient Near East 10W, Anthropology 3, Asian M60, History 1A, 1B, 1C, 9A, 9C, 9D, 9E, M10A, 10B, 11A, 11B, Philosophy 2, 21, Study of Religion M10, M50, M60A through M60E, M60W, M6L, M6W.

Transfer Students
Transfer applicants to the Study of Religion major with 90 or more units must complete the following introductory courses prior to admission to UCLA: one history of religions course, one philosophy of religion course, and two courses from sociocultural anthropology, Buddhism, history of Western civilization, Asian civilizations, civilizations of Africa, and history of China.

Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

The Major

Student are encouraged to select courses that focus on a specific religious tradition or traditions, or on a set of thematic issues important to the study of religion.

A course may be taken twice, on different topics, for credit toward the minor when repetition is allowed by the department offering the course. A maximum of 4 units of special studies courses (197, 198, 199) approved by the adviser may be applied toward the minor.

A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor.

Each minor course must be taken for a letter grade, and students must have an overall grade-point average of 2.0 or better in the minor.

Honors Program
The honors program provides exceptional students with an opportunity to do independent research under the tutorial guidance of a faculty member. Students admitted to honors should take three Study of Religion 198 courses under the guidance of the sponsoring professor. The first 198 course should be taken in spring quarter of the junior year, the second during the following fall quarter, and the third during winter quarter of the senior year. The three courses count as part of the regular requirement of 12 upper-division courses. The program culminates in an honors thesis.

To qualify for admission students should have a minimum grade-point average of 3.4. The 198 courses designed for the program and the thesis topic should be approved by the committee in charge of the major.

For more information, contact the student affairs officer or the faculty adviser at the program.

Study of Religion Minor
To enter the Study of Religion minor, students must have an overall grade-point average of 2.0 or better.

Required Lower-Division Courses (4 to 10 units):
Study of Religion M4 or 11, or M50 and M60A or M60W.

Required Upper-Division Courses (24 to 29 units):

Student are encouraged to select courses that focus on a specific religious tradition or traditions, or on a set of thematic issues important to the study of religion.

A course may be taken twice, on different topics, for credit toward the minor when repetition is allowed by the department offering the course. A maximum of 4 units of special studies courses (197, 198, 199) approved by the adviser may be applied toward the minor.

A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor.

Each minor course must be taken for a letter grade, and students must have an overall grade-point average of 2.0 or better in the minor. Successful completion of the minor is indicated on the transcript and diploma.

Study of Religion
Lower-Division Courses
M4. Introduction to History of Religions. (5) (Same as History M4.) Lecture; three hours; discussion, two hours. Comparative study of eight major religious traditions, with emphasis on their beginnings and subsequent decisive changes in their respective historical developments and interactions. Equips students with intellectual tools necessary for thinking analytically, empathetically, and comparatively about fascinating human phenomena identified as religious, such as sacred acts, places, words, and persons in their varied historical contexts. Development of student skills in critical thinking, analyzing documents, and making persuasive arguments based on historical evidence. P/NP or letter grading.

M10. Introduction to Judaism. (5) (Same as Jewish Studies M10.) Lecture, three hours; discussion, one hour. Judaism’s basic beliefs, institutions, and practices. Topics include development of biblical and rabbinic Judaism; concepts of god, sin, repentance, prayer, and the messiah; history of Talmud and synagogues; evolution of folk beliefs and year-cycle and lifecycle practices. P/NP or letter grading.

11. Religion in Los Angeles. (4) Lecture, four hours. Introduction to varieties of religious experience in Los Angeles and its environs. Presentations, required readings, and (where possible) site visits to examine selected faiths and spiritual practices throughout Southern California and provide deeper understanding of myriad ways that sacred is made manifest and encountered. Foundational academic orientations within study of religion (anthropological, historical, psychological, sociological, etc.) used as framework to examine and interpret almost unparalleled religious diversity of City of Angels. Recognizing that spiritual traditions are crucial reflection of region’s ever-changing demographics, emphasis on role of ethnicity, gender, nationality, and race in shaping of religious landscape. P/NP or letter grading.

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

M20. Introduction to Islam. (5) (Formerly numbered M109.) (Same as Islamic Studies M20.) Lecture, three hours; discussion, one hour. Genesis of Islam, its doctrines, and practices, with readings from Qur’an and Hadith; schools of law and theology; piety and Sufism; reform and modernism. P/NP or letter grading.

M40. Christianities East and West. (6) (Same as Sociology M40.) Lecture, three hours; discussion, one hour. Survey of three major historical branches of Christianity—Eastern and Oriental Orthodoxy, Roman Catholicism, and Protestantism, contrasting how history, dogma, culture, and community structures develop in those three traditions. P/NP or letter grading.

M50. Origins of Judaism, Christianity, and Islam. (5) (Same as Ancient Near East M50B and Middle Eastern Studies M50B.) Lecture, three hours; discussion, one hour. Examination of three major monotheistic religions of Israelite origin, the background of their development, and their ongoing importance today.
isms of Western cultures—Judaism, Christianity, and Islam—historically and comparatively. Development, teachings, and ritual practices of each tradition up to and including medieval period. Composition and development of various sacred texts, highlighting key themes and ideas within relevant historical and literary strata of traditions, such as mechanisms of revelation, struggle for religious authority, and common theological issues or origin of evil and status of nonbelievers. Letter grading.

55. Spirit of Medicine. (5) Lecture, three hours; discussion, one hour. Examination of relationship between medicine, religion, and society; how religion is help or hindrance to health; and how these might look like beyond biomedical clinic. Examination of historical entwinement of religion, medicine, society in Western antiquity to early modern period; disentanglement of science and technology; medicine care delivery, with particular attention to questions of justice and holistic care in U.S. and of policy and practice globally. P/NP or letter grading.

M60A. Introduction to Buddhism. (5) (Same as Asian M60W.) Lecture, three hours; discussion, one hour. Not open for credit to students with credit for course M60W. Knowledge of Asian languages not required. General survey of development of Buddhism in India, with focus on those religious doctrines and meditative practices most essential to various Asian traditions of Buddhism. Letter grading.

M60B. Introduction to Chinese Religions. (5) (Same as Chinese M60.) Lecture, three hours; discussion, one hour. Not open for credit to students with credit for course M60W. Knowledge of Chinese language not required. General survey of religious life in China, with emphasis on everyday religious practice over doctrine, and themes common to Buddhism, Daoism, and Confucianism. P/NP or letter grading.

M60C. Introduction to Korean Religions. (5) (Same as Korean M60.) Lecture, three hours; discussion, one hour. Not open for credit to students with credit for course M60W. Knowledge of Korean language not required. General survey of history of religions in Korea—Shamanism, Buddhism, Confucianism, Daoism, Christianity, Tonghak, and some new religions—with focus on religious doctrines, practices, Korean cultural peculiarities, and social impacts. P/NP or letter grading.

M60D. Religion in Classical India: Introduction. (5) (Same as South Asian M60W.) Lecture, three hours; discussion, one hour. Introduction to religions of classical India—Vedanta, Buddhism, Jain, and Sikhism—paying equal attention to change and continuity, with emphasis on chronological development. P/NP or letter grading.

M60E. Religious Traditions in Southeast Asia. (4) (Same as Southeast Asian M60.) Lecture, three hours. Introduction to historical development and contemporary practice of religions in Southeast Asia. Examination of indigenous religious beliefs and major textually based religious traditions, including Hinduism, Buddhism, Islam, and Christianity. P/NP or letter grading.

M60F. Introduction to Buddhism. (5) (Same as Asian M60W.) Lecture, three hours; discussion, one hour. Enforced requisite: English Composition 3 or 3H or English as a Second Language 36. Not open for credit to students with credit for course M60A. Knowledge of Buddhism worldview and lifestyle, with focus on those religious doctrines and meditative practices most essential to various Asian traditions of Buddhism. Particular attention to problems involved in study of religious texts (reading and writing requirement). Letter grading.

M61. Introduction to Zen Buddhism. (5) (Same as Asian M61.) Lecture, three hours; discussion, one hour. Knowledge of Asian languages not required. Introduction to Zen traditions and to interplay between Zen and other fundamental cultural and religious concerns in East Asia. Topics include role of Zen within Buddhist thought and practice, artistic and literary arts, society, and daily life. Letter grading.

M61W. Introduction to Religious Traditions. (5) (Same as Chinese M60W.) Lecture, three hours; discussion, one hour. Enforced requisite: English Composition 3 or 3H or English as a Second Language 36. Not open for credit to students with credit for course M60B. Knowledge of Chinese not required. General survey of religious life in China, with emphasis on everyday religious practice over doctrine, and themes common to Buddhism, Daoism, and Confucianism. Satisfies Writing II requirement. Letter grading.

89. Honors Seminar. (Same as 101.) Limited to 20 students. Designed as adjunct to lower-division lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by letter course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

89HC. Honors Contracts. (1 to 3) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to lower-division lecture course. Individual study with letter course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

99. Student Research Program. (1 to 2) (Same as 101.) Supervised research or other scholarly work, three hours per week per unit. Entry-level research for lower-division students under guidance of faculty mentor. Students may not enroll beyond unit and enroll in minimum of 12 units (excluding this course). Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP grading.

Upper-Division Courses

101. History of Study of Religion. (4) Lecture, four hours. Recommended requisite: History 4. Survey of major modern theories, methods, and approaches to study of religion to situate them within their own historical, philosophical, and sociocultural contexts. Critical consideration of changing and contested meanings of term religion and its relationship to such categories as science and magic, as well as to other domains of social experience. Examination of how study of religion has evolved, especially historically, through four biblical studies, anthropology, sociology, psychology, and evolutionary biology. P/NP or letter grading.

M105A. Bahá’í Faith in Iran: Historical and Sociological Survey. (4) (Same as Iranian M105A.) Lecture, three hours. Readings in English. Rise and development of Bahá’í religion and its context in 19th-century Iran. Focus on personalities of Báb, Bahá’u’lláh, and ‘Abdu’l-Bahá. May be taken independently for credit. P/NP or letter grading.


M105C. Bahá’í Faith in Iran: 20th-Century Iran and the Bahá’ís. (4) (Same as Iranian M105C.) Lecture, three hours. Readings in English. Focus on history of 20th-century Iran beginning with constitutional revolution, development and persecution of Bahá’í community, and latter’s relation to reform movements in Iran. May be taken independently for credit. P/NP or letter grading.

M106A. Premodern Islam. (4) (Same as History M106.) Lecture, three hours; discussion, one hour (when scheduled). Recommended for juniors/seniors. Examination of early development of Islam with special attention to doctrine of nature of God, human responsibility, guidance, revelation and religious authority, duties of believers, ritual, law, sectarian movements, mysticism, and popular religion. P/NP or letter grading.

M107. Islam in West. (5) (Same as Arabic M107 and Islamic Studies M107.) Lecture, three hours; discussion, one hour. Acquisition of understanding of basic doctrines and practices of Islam. Survey of history of Islam in West, with focus on U.S. and France. Analysis of issues relevant to growth and development of select Muslim communities in West. Exposure to diverse expressions of Islam through independent research on Muslim communities and institutions in U.S. Development of strong cultural and literary writing and speaking skills. P/NP or letter grading.

M108. Qur’an. (4) (Same as Arabic M108.) Lecture, three hours. Introduction to Qur’an, its early history, and formal and functional aspects of Qur’an. Interactions with Christianity, Judaism, and Hinduism in relation to Islam. Exposure to Qur’an as cultural and political text. Focus also on Qur’an as an artifact of Islamic civilization. Letter grading.

M115. Islam and Other Religions. (5) (Same as Islamic Studies M115.) Lecture, three hours; discussion, one hour. Students gain familiarity with historical cases and modes of interaction between Muslims and non-Muslims in plural societies. Focus on case studies dealing with religion and violence in India, Northern Ireland, Egypt, Lebanon, Israel, Palestine, Sri Lanka, and the U.S. Letter grading.

M119B. Bahá’í Faith in Iran: Historical and Sociological Survey. (4) (Same as Iranian M119B.) Seminar, three hours. Examination of major events and developments in Iran from Safavid to Pahlavi eras with focus on European intervention, development of central conflict, and development of Islamic nationalism. May be taken independently for credit. P/NP or letter grading.

110. Religion and Violence. (4) Seminar, three hours. Discussion, one hour. Exploration of capacity of religion to mobilize and legitimize violence. Materials include theoretical texts by Rene Girard, Jonathan Z. Smith, and David Rapoport and case studies dealing with religion and violence in India, Northern Ireland, Egypt, Lebanon, Israel, Palestine, Sri Lanka, and the U.S. Letter grading.

M121. Theology and Violence. (4) Seminar, three hours. Discussion, one hour. Theology and violence in the context of Christianity, Judaism, and Islam. May be taken independently for credit. P/NP or letter grading.


M132. Ancient Egyptian Religion. (5) (Same as Ancient Near East M132.) Lecture, three hours; discussion, one hour. Introduction to religious beliefs, practices, and sentiments of ancient Egypt to study Egyptian religion as coherent system of thought and sphere of action that once served as meaningful and relevant framework for understanding physical reality and human life for inhabitants of Nile Valley. General principles as developments through time (circa 3000 BC to 300 CE). Topics include mythology, temple and cult, magic, and personal piety. P/NP or letter grading.

M133. Bible and Qur’an. (4) (Same as Middle Eastern Languages and Cultures M133.) Lecture, three hours. Analysis of Hebrew Bible/Old Testament, New Testament, and Qur’an to familiarize students with content of scriptures of Judaism, Christianity, and Islam, and sociocultural background from which various religious texts emerged, and to explore major themes and consider variety of approaches to scripture. Development
of appreciation for role scripture plays in these reli-
gious systems and in American culture and society. P/ NP or letter grading.

M135. Religion in Ancient Israel. (4) (Same as An-
cient Near East M135.) Lecture, three hours. Introduct-
ory survey of various ancient Israelite religious beliefs and prac-
tices, their origin, and development, with spe-
cific Near East M135.) Lecture, three hours. Introduc-
tion to Biblical Studies. (4) (Same as South Asian
CM160.) Lecture, three hours; discussion, one hour. Knowledge of Indian languages not required. Over-
view of social and doctrinal history of Buddhism from its or-
to its disappearance in India, based not only on the
study of historical and in-
scriptional sources. Examination of both formal doc-
trine and actual practices and on what learned Bud-
dhist and ordinary Buddhists did, saw, and made. Letter grading.

M172. Introduction to Biblical Studies. (4) (Same as
Ancient Near East M170.) Lecture, three hours. Knowl-
edge of original languages not required. Bible (Old and New Testaments) as book. Canon, text, and documenta-
tion, religious authority, marriage and family life, fer-
tility, conceptions of body, public life, and/or literary representation of gender (including those of divine).
Variety of approaches to be employed, including femi-
nist, literary, historical, sociological, and anthropologi-
cal. P/NP or letter grading.

M155. Angels, Demons, and End of World: Magic,
Mysticism, and Apocalypticism in Jewish Traditions.
(4) (Same as Jewish Studies M155.) Lecture, three hours. Focus on popular Jewish traditions of magic, mysticism, apocalyptic, and various contours of Ju-
daism's textual and material traditions in antiquity. Ex-
amination of texts and objects from Hebrew Bible to
modern discussions of Kabbalah and end of world, concentr-
ing on Jewish antiquity. Discussion of texts, including
Hebrew Bible, Dead Sea Scrolls, ex-lib-
rical Jewish texts, New Testament, and rabbinic and
later Jewish literature. Discussion of sociohistorical context in order to decipher features and functions of magic, mysticism, apocalyptic in antiquity and
todays. P/NP or letter grading.

160. Religion, Film, and Media. (4) Lecture, four
hours. Examination of complex relationship between religious traditions and various media (e.g., print, film, photography, television, radio, and electronic) as they
have intersected in specific historical and cultural con-
texts. Illumination of role of media in forming and ex-
pressing religious ideas, practices, and identitites.
Topics may include representations of religious groups, visual and aural piety, identity formation, inter-
religious conflict, religious education, and use of media technologies for propaganda or proselytizing purposes. Experiences include historical, and anthropological
approaches used in concert with various methodolo-
gies current within media studies. P/NP or letter grading.

M161A. Chinese Buddhism. (4) (Same as Chinese
CM160.) Lecture, three hours; discussion, one hour. Knowl-
edge of Chinese not required. Introduction and develop-
ment of Buddhism in China, interaction be-
tween indigenous Korean culture and Sinic traditions
of Buddhism. Knowledge of Chinese is required. P/NP or letter grading.

M161B. Japanese Buddhism. (4) (Same as Japa-
nese CM160.) Lecture, three hours; discussion, one hour. Knowledge of Japanese not required. Develop-
ment of Buddhism in Japan in its cultural context, with
emphasis on key ideas and teachings. Letter grading.

M161C. Korean Buddhism. (4) (Same as Korean
CM160.) Lecture, three hours; discussion, one hour. Knowl-
edge of Korean not required. Introduction and develop-
ment of Buddhism in Korea, interaction be-
tween indigenous Korean culture and Sinic traditions
of Buddhism. Knowledge of Chinese is required. P/NP or letter grading.

M162A. Japanese Buddhism. (4) (Same as An-
cient Near East M162A.) Lecture, three hours; discussion,
one hour (when scheduled). Designed for juniors/seniors. Examination of the religious dimension of people’s
experience in U.S. Examination of number of religious tra-
ditions that have been important in this country, with
emphasis on religious developments in religion to other aspects of American culture. P/NP or letter grading.

M162B. Medieval Jewish History. (4) (Same as His-
story M162B and Jewish Studies M162B.) Lecture, three hours; discussion, one hour (when scheduled). Designed for juniors/seniors. Exploration of unfolding of Jewish history from rise of Christianity to expul-
sion of Jews from Spain in 1492. P/NP or letter grading.

M178. Jesus of Nazareth in Historical Research.
(4) (Same as History M185L.) Lecture, three hours;
discussion, one hour (when scheduled). Designed for juniors/seniors. Stimulated by significant post-Enlightenment
historical evaluations, students are led into firsthand knowledge of the life and teachings of Jesus. P/NP or letter grading.

(4) (Same as History M185G.) Lecture, three hours; dis-
cussion, one hour (when scheduled). Designed for juniors/seniors. Examination of the religious dimension of people’s
experience in U.S. Examination of number of religious tra-
ditions that have been important in this country, with
emphasis on religious developments in religion to other aspects of American culture. P/NP or letter grading.
189. Advanced Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to undergraduate lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

189HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to upper-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

191. Variable Topics Research Seminars: Study of Religion. (4) Seminar, four hours. Preparation: completion of preparation for major courses and at least half of upper-division courses required for major (including theory and method courses). Designed for senior majors. Seminar on central method and/or theme in study of religion. Refinement and integration of this knowledge by means of close reading and analysis of primary documents, debating contested issues, and researching and writing original paper. P/NP or letter grading.


199. Directed Research in Study of Religion. (2 to 4) Tutorial, one hour. Limited to juniors/seniors. Supervised individual research under guidance of faculty mentor. Culuminating paper or project required. Twelve units may be applied toward major. Individual contract required. Letter grading.

SCANDINAVIAN SECTION

College of Letters and Science

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Scope and Objectives

Scandinavia consists of five northern European countries: Denmark, Finland, Iceland, Norway, and Sweden. These countries form a geographic bridge between the American and European continents, and a political bridge between Western and Eastern Europe. For all students of literature, language, the arts, and the social and physical sciences, Scandinavia is of particular interest.

The Scandinavian Section offers two majors, one minor, and a Master of Arts program. The BA in Scandinavian Languages and Cultures provides students with a broad, yet robust, knowledge of the languages, literatures, and cultures of the Nordic countries. The BA in Nordic studies trains undergraduate students in a broad, interdisciplinary understanding of the Nordic region. The goal of this major is to provide students with a robust knowledge of the cultures and histories of this region from a global and transdisciplinary perspective. This major allows interested students an opportunity to explore the Nordic region from the perspective of non-Humanities disciplines, if they choose, while requiring a strong grounding in the history and cultures of the region. The minor in Scandinavian Languages is designed to give students a command of the intellectual history of the region and a developing appreciation of its literatures and cultures.

Graduate study leads to the Master of Arts in Scandinavian. Graduate students are expected to concentrate on one Scandinavian language, though they study the literatures of the other areas.

Undergraduate Study

The Scandinavian Languages and Cultures and Nordic Studies majors are designated capstone majors. Under the guidance of faculty members, students are required to devise, research, and complete either a substantial research paper, film/video, or a website that reflects significant engagement with a challenging question in the realm of Scandinavian languages and cultures or Nordic studies. Through their capstone work, all students are expected to demonstrate their skills in articulating a clear and sophisticated research question, devising a realizable set of research goals, deploy their advanced knowledge of a Nordic language to access target language research materials and incorporate them into the research corpus, devise an appropriate modality for the final project, present a concise engaging public presentation of their research and respond to questions, and archive their project in an appropriate form.

Language Acquisition Courses

No credit is allowed for completing a less advanced course after successful completion of a more advanced course in Danish, Norwegian, and Swedish grammar and/or composition. Students with demonstrated preparation may be permitted a more advanced program by the section or may be transferred to a more advanced course with consent of the instructor.

Native speakers of Norwegian, Swedish, and Danish may not enroll in any language course (including courses 105, 106, 107) in the Scandinavian Section except by petition in writing to the section. Students who are not Nordic Studies or Scandinavian Languages and Cultures majors or Scandinavian minors with knowledge of one of these Scandinavian languages may not take courses in the others except by petition in writing. Petitions must include a description of the student’s linguistic background and the reason for wanting to take the language course in question.

Nordic Studies BA

Capstone Major

Learning Outcomes

The Nordic Studies major has the following learning outcomes:

- Demonstrated command of the linguistic and cultural diversity of the Nordic region
- Demonstrated command of the economics, politics, environments, and histories of the Nordic region
- Demonstrated specific skills and expertise, including research, analysis, and writing
- Demonstrated understanding of the role of the Nordic region in global context, and the impact of global phenomena on the region
- Identification, evaluation, and analysis of appropriate primary sources
- Working knowledge of scholarly discourse from broad range of disciplines
- Conception and execution of a project that identifies and engages with a specialized topic
- Engagement with peers through presentation, discussion, and critique of student work

The Major

Required: Nine courses from the following five tracks, with at least one course in four of the tracks: (1) early Nordic literatures and cultures—Scandinavian C131, C133A, 134, C137, 138, (2) theory, genres, and authors—Scandinavian C141A, 141C, 142A, 143C, C145A, C145B, C146A, 147A, 147B, (3) literary periods—Scandinavian C155, 156, 157, (4) Scandinavian cinema—Scandinavian 161, C163A, C166A, C166C, (5) cultural studies—Scandinavian C171, C173A, C174A, C174B, C180; and one senior capstone course (Scandinavian 199) under the direction of a faculty member. As an option, four upper-division courses in a related field may be taken if approved in advance by the undergraduate adviser. In general, the courses must include significant content related to the Nordic region.

Scandinavian Languages and Cultures BA

Capstone Major

Learning Outcomes

The Scandinavian Languages and Cultures major has the following learning outcomes:

- Demonstrated written and oral mastery of a single Nordic language
- Demonstrated knowledge of the other Nordic languages
- Demonstrated specific skills and expertise, including research, analysis, and writing
- Identification, evaluation, and analysis of appropriate primary sources
Graduate Study

Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Division website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Graduate Degree

The Scandinavian Section offers the Master of Arts (MA) degree in Scandinavian.

Scandinavian Lower-Division Courses

1. Elementary Swedish. (4) Discussion, four hours. P/NP or letter grading.
4. Elementary Swedish: Intensive. (12) Lecture, 15 hours; laboratory, five hours. Intensive basic course in Swedish equivalent to courses 1, 2, and 3. Offered in summer only. P/NP or letter grading.
5. Elementary Norwegian. (4) Discussion, four hours. P/NP or letter grading.
7. Accelerated Elementary Norwegian. (6–8) Lecture, four hours. Requisite for course 14B: course 14A. Accelerated courses 14A and 14B equivalent to courses 11, 12, and 13. Introduction to basics of Norwegian language. Development of ability to converse and write in Norwegian through oral and written exercises. Students read and listen to online sample texts, watch clips of Norwegian programs, and expand on daily homework exercises. P/NP or letter grading.
8. Fiat Lux Freshman Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to lower-division lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.
9. Honors Contracts. (1) Tutorial, three hours. Limited to 20 students. Designed as adjunct to lower-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

Scandinavian Minor

To enter the Scandinavian minor, students must have an overall grade-point average of 2.0 or better.

Required Courses (28 units): Any seven Scandinavian courses, two of which may be lower-division courses selected from Scandinavian 1 through 6.

A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor.

Each minor course must be taken for a letter grade, and students must have an overall grade-point average of 2.0 or better in the minor. Successful completion of the minor is indicated on the transcript and diploma.

Scandinavian

Lower-Division Courses

1. Elementary Swedish. (4) Discussion, four hours. P/NP or letter grading.
4. Elementary Swedish: Intensive. (12) Lecture, 15 hours; laboratory, five hours. Intensive basic course in Swedish equivalent to courses 1, 2, and 3. Offered in summer only. P/NP or letter grading.
5. Elementary Norwegian. (4) Discussion, four hours. P/NP or letter grading.
7. Accelerated Elementary Norwegian. (6–8) Lecture, four hours. Requisite for course 14B: course 14A. Accelerated courses 14A and 14B equivalent to courses 11, 12, and 13. Introduction to basics of Norwegian language. Development of ability to converse and write in Norwegian through oral and written exercises. Students read and listen to online sample texts, watch clips of Norwegian programs, and expand on daily homework exercises. P/NP or letter grading.
8. Fiat Lux Freshman Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to lower-division lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.
9. Honors Contracts. (1) Tutorial, three hours. Limited to 20 students. Designed as adjunct to lower-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

Upper-Division Courses


107C. Advanced Danish. (4) Lecture, three hours. Enforced requisite: course 107B. Readings, composition, and conversation in Danish. May be repeated once for credit. P/NP or letter grading.


C131. Introduction to Viking Age. (4) Lecture, three hours. History, society, and culture of early Scandinavians. All texts in English, including readings in Old Norse sagas and Eddas. Concurrently scheduled with course C231. Letter grading.

C133A. Saga. (4) Seminar, three hours. Sagas are largest extant literary and historical sources in English, with selections from different types of Icelandic sagas. Consideration of history and society that produced these narratives. Concurrently scheduled with course C233A. Letter grading.

133C. Social Network Analysis and Icelandic Familysaga. (4) Seminar, three hours. Exploration of how character interactions can be used as basis for developing social network view of stage on which saga action plays out. Examination of how to model sagas as dynamic social networks and learn about metrics and analytical approaches from social network analysis (SNA) that deepen understanding of saga actions. SNA provides additional opportunity to explore hypothetical situations and recognize alternative social pathways that may have led to other types of community formations. Study of Icelandic saga toward increasing complexity, developing understanding of characters and character roles, and using this as basis of preliminary investigations. P/NP or letter grading.

134. Scandinavian Mythology. (4) Seminar, three hours. Overview of major gods and goddesses, heroes and heroines, narratives and adventures that make up lore collectively referred to as Scandinavian, or Norse, myth. Focus not only on myths but on the tale that is chiefly preserved in two collections traditionally called Poetic (or Elder) Edda and Prose (or Younger) Edda. P/NP or letter grading.


138. Vikings. (5) Lecture, three hours; discussion, one hour. Survey of history, anthropology, and archaeology of Viking Age Northern Europe, with focus on medieval sagas as well as secondary material, focus on impact of Vikings on northern Europe, and consider ways in which European and Scandinavian societies evolved in response to Viking incursions. P/NP or letter grading.


C141C. Short Story in Scandinavia. (4) Seminar, three hours. Exploration of range of classic short story and novella texts from Scandinavian literary canon, with stories by authors such as Hans Christian Andersen, Jens Peter Lindberg, Kielland, Amalie Skram, Sigbjørn Obstfelder, Knut Hamsun, Isak Dinesen, and Rubén Palm. Examination of authors’ lives and oeuvres, larger Nordic/European literary movements of 19th and 20th centuries, and tropes and conventions of short stories themselves. P/NP or letter grading.

142A. Introduction to Nordic Theater and Drama. (4) Lecture, three hours. Examination of artistic legacy of Henrik Ibsen and August Strindberg in context of emergence of modernism and drama as whole, as well as important contributions of their contemporaries and successors. Readings include plays, letters, speeches, and memoirs by Ludvig Holberg, Henrik Ibsen, August Strindberg, Sjöwall and Wahlöö, and Ruben Palm. May be concurrently scheduled with course C242A. P/NP or letter grading.

143A. Scandinavian Detective Fiction. (4) Seminar, three hours. Scandinavian authors have been writing detective fiction for years. Maj Sjöwall and Per Wahlöö were famous worldwide in 1960s and 1970s, especially their Martin Beck series, and once they had established that Scandinavian writers could be successfully translated into many languages, others followed. Scandinavian authors, while following traditional rules of crime fiction, also analyze and often criticize values and cultures of their societies. Reading of these works as representations of critical social and intellectual problems not only in Scandinavia, but in Europe and beyond. May be concurrently scheduled with course C243A. P/NP or letter grading.


C145A, Henrik Ibsen. (4) Seminar, three hours. Readings and discussion of selected plays by Henrik Ibsen. May be concurrently scheduled with course C245A. P/NP or letter grading.

145B. Knut Hamsun. (4) Seminar, three hours. Readings and discussion of selected works by Knut Hamsun and other 19th- and 20th-century Scandinavian writers who explored theme of nature as modern idyl. May be concurrently scheduled with course C245B. P/NP or letter grading.

146A. August Strindberg. (4) Seminar, three hours. August Strindberg’s portrayals of marital conflict redefined and shaped literary representation of so-called battle of sexes. His work, as well as its literary transformations, placed into Scandinavian, European, and feminist context. May be concurrently scheduled with course C246A. P/NP or letter grading.

147A. Hans Christian Andersen. (4) Lecture, two hours; discussion, one hour. Study of works of Hans Christian Andersen as dramatist and writer of tales, including consideration of his literary background and of his times. Analysis of his works in terms of their structure, style, and meaning. P/NP or letter grading.

C147B. Soren Kierkegaard. (4) Seminar, three hours. Readings and discussion of selected works by Soren Kierkegaard and other existentialist writers. May be concurrently scheduled with course C247B. P/NP or letter grading.


154. Romanticism. (4) Seminar, three hours. Exploration of Romanticism in Scandinavian literature. Reading and discussion of different approaches to Romanticism and analysis of works of prominent Scandinavian writers from Romantic period to understand Scandinavian Romanticism in larger European context, including work from the English and German Romantic writers and artists. P/ NP or letter grading.

C155. Modern Breakthrough. (4) Formerly numbered 155.) Seminar, three hours. Readings and discussions of selected works of realism, naturalism, and symbolism in late 19th-century Scandinavian literature and art. Concurrently offered with course C255. P/ NP or letter grading.

156. Scandinavian Literature of 20th Century. (4) Seminar, three hours. Readings and discussion of selected works of modern Scandinavian literature from beginning of century to present. P/ NP or letter grading.

157. Contemporary Nordic Literature. (4) Seminar, three hours. Reading and analysis of selected texts by recent 20th-century Swedish authors. P/NP or letter grading.

C158A. Introduction to Danish Cinema. (4) Seminar, three hours. Reading and analysis of selected texts by recent 20th-century Swedish authors. P/ NP or letter grading.

C163A. Introduction to Danish Cinema. (4) Seminar, three hours. Introduction to history of cinema in Denmark, as well as to some fundamental concepts in study of film. Deliberately broad and historically centered approach to development of cinema in Denmark rather than focus on films of particular directors or eras. Theoretical readings include works by Kierkegaard and other existentialist writers. May be concurrently scheduled with course C245A. P/ NP or letter grading.

C163B. Introduction to Swedish Cinema. (4) Lecture, three hours. Introduction to and exploration of history of Swedish cinema from silent era to present. Filmmakers include auteurs in international canon, such as Victor Sjöström and Mauritz Stiller, and Ingmar Bergman, as well as other key Swedish filmmakers such as Gustaf Molander, Alf Sjöberg, Mai Zetterling, Viggo Sjöman, Jan Troell, Lukas Moodysson, and Jan-Ole Ratnberger. Development of high art cinema and popular genres such as rural romanticism, melodrama, sex, crime, and horror. All films have English subtitles. Concurrently scheduled with course C255A. P/ NP or letter grading.

C163C. Introduction to Norwegian Cinema. (4) Seminar, three hours. Introduction to and exploration of history of Norwegian cinema from silent era to present. Filmmakers include Tancred Ibsen, Arne Skouen, Edith Carlmar, Nils Gaup, Erik Skjoldbjærg, Bent Hamer, Khalid Hussain, and Petter Næss. Particular focus on popular genres such as war films, horror, noir, romantic comedies, and documentaries. Concurrently scheduled with course C245A. P/ NP or letter grading.

165B. Vikings on Film. (4) Seminar, three hours. Exploration of representations of Vikings in medium of film, considering Viking films within their historic and cultural contexts. How does representation of Vikings on film correspond to historical reality of Vikings? What have Vikings come to signify in modern era and why? Do we see development in idea of Vikings over time that is reflected in films from different periods? How do representations of Vikings in films produced in Scandinavia differ from their representations in films from other cultures? How do we see changing ideas about gender, ethnicity, dis/ability, sexual preference, and other aspects of identity reflected in Viking films? Development of critical thinking and close textual analysis skills. All readings and films in English or with English subtitles. P/ NP or letter grading.

C166A. Ingmar Bergman. (4) Seminar, three hours. Exploration of Ingmar Bergman’s development as film artist through various periods, spanning mid-1940s and late 1970s. Contextualization of work of most prominent Swedish filmmakers with works of postSwedish film industry, international art cinema movement, and issues of auteur filmmaking. Course readings and viewing of 10 Bergman films. All films have English subtitles. Concurrently scheduled with course C256A. P/ NP or letter grading.

C166C. Carl Dreyer. (4) Seminar, three hours. Carl Theodor Dreyer (1889 to 1968) is not only one of great masters of Nordic cinema, but of world cinema as well. Focus on films that Dreyer made during near half
May be concurrently scheduled with course C265. Parallel, three hours. Selected topics in Scandinavian and queer studies, as well as presentation of historical material. May be repeated for credit (as determined by undergraduate adviser) with topic change. May be concurrently scheduled with course 2280, P/ NP or letter grading.

C171. Introduction to Scandinavian Folklore. (4) Seminar, three hours. Introduction to fairy tales and legends of Scandinavian tradition as well as to interpretive strategies. May be repeated for credit (as determined by undergraduate adviser) with topic change. May be concurrently scheduled with course 2285, P/NP or letter grading.

172A. Nordic Folk and Fairy Tales. (4) Seminar, three hours. Exploration of Nordic version of classic tale types such as Dragon Slayer, Cindarella, Hansel and Gretel, and King Lindorm in historic and cultural contexts. Reading of important works of Nordic and international folk tale scholarship, representing historical-geographic, structuralist, psychological, feminist, disability-theory, and queer-theory approaches. Development of critical thinking and close textual analysis skills, and understanding and appreciation of genre conventions in popular culture. Readings in English translation. P/NP or letter grading.

173A. Popular Culture in Scandinavia. (4) Seminar, three hours. Examination of popular culture in Scandinavia through study of contemporary Scandinavian literature, film, music, and art. Investigation of how issues such as globalization, immigration, and nationalism are portrayed in popular culture in Denmark, Norway, Sweden, Finland, and Iceland. Discussion of how and why human condition is interpreted through study of cultural expressions and how it is possible—to take literature, film, and art as point of departure—to analyze cultural, historical, and political expression in given piece of art. P/NP or letter grading.

174A. Minority Cultures in Scandinavia. (4) Seminar, three hours. Exploration of emergence of immigrant cultures in Nordic region. Beginning in 1960s, large numbers of people from Turkey, Italy, and Pakistan began immigrating to Nordic countries, followed in subsequent decades by immigrants and refugees from Vietnam, India, Iran, Iraq, Afghanistan, Cambodia, and countries throughout Africa. Cultural landscape has been significantly marked by relatively high degree of cultural homogeneity now characterized by broad cultural diversity. Examination of emergence of new voices within dominant narratives in visual and cultural expressive media, including literature, film, and visual and performing arts. Exploration of emergence of new forms of Nordic languages, such as well-known phenomenon of Rinkeby Swedish. Concurrently scheduled with course 2274A, P/NP or letter grading.

174B. Queer Scandinavia. (4) Seminar, three hours. Queer themes in Scandinavian literature, mainly from 19th and 20th centuries. Scandinavian countries have had more progressive view on homosexuality than most other countries, and Scandinavian writers portrayed homosexuality in explicit and radical ways as early as 1800s. Introduction to key theoretical works within field of gay and lesbian studies and queer studies, as well as presentation of historical view of how homosexuality has been perceived in Western world. Reading and discussion. Preparation: advanced knowledge of one modern Scandinavian language. Readings and discussion of selected works by Henrik Ibsen, August Strindberg, and Knut Hamsun. Concurrently scheduled with course 2276. P/NP or letter grading.

187FL. Special Studies: Readings in Scandinavian. (2) Seminar, two hours. Requisite: course 101B or 108B or 107B. Students must be concurrently enrolled in affiliated main course. Additional work in Nordic languages (Danish, Icelandic, Norwegian, Swedish) to augment work assigned in main course. May be repeated for credit. P/NP or letter grading.


188SB. Individual Studies for USIE Facilitators. (1) Tutorial, to be arranged. Enrolled course: Honors College 101B. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor while facilitating USIE 885 course. Individual contract with faculty mentor required. May not be repeated. Letter grading.

188SC. Individual Studies for USIE Facilitators. (2) Tutorial, to be arranged. Enrolled course: Honors College 101B. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor while facilitating USIE 885 course. Individual contract with faculty mentor required. May not be repeated. Letter grading.

189. Advanced Scandinavian. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to undergraduate lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

189HC. Honors Contracts. (1) Seminar, three hours. Limited to juniors/seniors. Honors contract for individual study. Re-designed as adjunct to upper-division lecture course. Individual study with lecture course instructor to explore in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.


199. Directed Research in Scandinavian. (4) Tutorial, three hours. Limited to juniors/seniors. Supervised individual research or investigation under guidance of faculty mentor. Individual contract required. May be repeated for credit. Individual contract required. P/NP or letter grading.

Graduate Courses

C231. Introduction to Viking Age. (4) Lecture, three hours. History and culture of early Scandinavians. All texts in English, including readings in Old Norse sagas and Eddas. Concurrently scheduled with course C131. Graduate students do additional readings and write more extensive research papers. Letter grading.

C232. Saga. (4) Seminar, three hours. Sagas are largest extant medieval prose literature. Texts in English, with selections from different types of Icelandic sagas. Consideration of society, as well as to selected narratives. Concurrently scheduled with course C133A. Graduate students do additional readings and write more extensive research papers. Letter grading.

C238. Advanced Old Norse Prose. (4) Lecture, three hours. Requisite: course 132B. Readings of major saga texts. Also, secondary sources that bear on specific issues in Old Norse literature and medieval Scandinavian history. S/U or letter grading.


235A. Advanced Old Norse Poetry. (4) Lecture, three hours. Requisite: course 132B. Readings of mythological and heroic poems and selected epics, as well as secondary sources used where appropriate. S/U or letter grading.

C237. Old Norse Literature and Society. (4) Seminar, three hours. Critical issues in medieval Scandinavian literature. May be repeated for credit. Concurrently scheduled with course C137. Graduate students do additional readings and write more extensive research papers. Letter grading.

C241A. Theory of Scandinavian Novel. (4) Seminar, three hours. Preparation: advanced knowledge of one Scandinavian language. Analysis of predominant structures of Scandinavian novel from its 18th-century beginnings through its rise in 19th century and its 20th-century evolution. Discussion of application of contemporary critical theories to novels. May be concurrently scheduled with course C141A. Graduate students may meet as group one additional hour each week and write research papers of greater length and depth. S/U or letter grading.

C245A. Henrik Ibsen. (4) Seminar, three hours. Preparation: advanced knowledge of one modern Scandinavian language. Readings and discussion of selected works by Henrik Ibsen. Concurrently scheduled with course C145A. Graduate students may meet as group one additional hour each week and write research papers of greater length and depth. S/U or letter grading.

C245B. Knut Hamsun. (4) Seminar, three hours. Preparation: advanced knowledge of one Scandinavian language. Readings and discussion of selected works by Knut Hamsun. Preparation: advanced knowledge of one 20th-century Scandinavian writers who explored theme of nature as modern idyll. May be concurrently scheduled with course C145B. Graduate students may meet as group one additional hour each week and write research papers of greater length and depth. S/U or letter grading.

C246A. August Strindberg. (4) Seminar, three hours. Preparation: advanced knowledge of one Scandinavian language. Readings and discussion of selected works by August Strindberg. Preparation: advanced knowledge of one modern Scandinavian writer. May be concurrently scheduled with course C147B. S/U or letter grading.

C247B. Soren Kierkegaard. (4) Seminar, three hours. Preparation: advanced knowledge of one modern Scandinavian language. Readings and discussion of selected works of Soren Kierkegaard and other existentialist writers. May be concurrently scheduled with course C147B. S/U or letter grading.


C263A. Introduction to Danish Cinema. (4) Seminar, three hours. Introduction to history of cinema in Denmark as well as to some fundamental concepts in study of film. Deliberately broad and historically centered approach to development of cinema in Denmark rather than focus on films of particular directors or topics. Theoretical readings from important critics, including Kracauer, Bazin, Metz, and Chatman, along with several directed exercises, to develop vocabulary and critical method for discussing films in general and Danish cinema in particular. Courses includes selections from Hjort, Sandberg, Tangerlini, and other Scandinavian theorists. Concurrently scheduled with course C163A. S/U or letter grading.

C263B. Introduction to Swedish Cinema. (4) Lecture, three hours. Introduction to history and exploration of history of Swedish cinema from silent era to present. Filmmakers include auteurs in international canon, such as Victor Sjostrom, Mauritz Stiller, and Ingmar
Bergman, as well as other key Swedish filmmakers such as Gustaf Molander, Alf Sjöberg, Mai Zetterling, Vilgot Sjöman, Jan Troell, Lukas Moodysson, and Josef Fares. Development of Scandinavian high art cinema and popular genres such as rural romanticism, melodrama, saga, crime, and horror. All films have English subtitles. Concurrently scheduled with course C163B. S/U or letter grading.

C253C. Introduction to Norwegian Cinema. (4) Seminar, three hours. Introduction to and exploration of history of Norwegian cinema from silent era to present. Filmmakers include Tancred Ibsen, Arne Skouen, Edith Caarlin, Nils Gaup, Erik Skjodtbjørg, Bent Hamre, Knut Admiral, and Petter Næss. Particular focus on genres such as war films, horror, noir, romantic comedies, and documentaries. Concurrently scheduled with course C163C. S/U or letter grading.

C255. Seminar: Scandinavian Literature. (4) Seminar, three hours. Preparation: reading knowledge of a Scandinavian language. Selected topics in Scandinavian prose, poetry, and drama. May be repeated for credit with consent of instructor and graduate adviser. May be concurrently scheduled with course C185. S/ U or letter grading.

C266A. Ingmar Bergman. (4) Seminar, three hours. Exploration of Ingmar Bergman’s development as a film artist through various periods, spanning mid-1940s and late 1970s. Contextualization of work of this most personal of filmmakers within multiple frameworks of postwar Swedish film industry, international art cinema movement, and issues of auteur filmmaking. Course readings and viewing of 10 Bergman films. All films have English subtitles. Concurrently scheduled with course C166A. S/U or letter grading.

C266C. Carl Dreyer. (4) Seminar, three hours. Carl Theodor Dreyer (1889-1968) is not only one of great masters of Nordic cinema, but of world cinema as well. Focus on films that Dreyer made during near half century between 1919 and 1964. Contextualization of silent and sound works of this most personal of film-makers working within Danish national film industry, transnational European cinema, and issues of auteur filmmaking. Writings by key Dreyer scholars such as David Bordwell, Ray Carney, Paul Schrader, Mark Sandberg, and others, as well as Dreyer’s own writings on cinema. All films have English subtitles or subtitles. Concurrently scheduled with course C166C. S/U or letter grading.

C271. Introduction to Scandinavian Folklore. (4) Seminar, three hours. Preparation: advanced knowledge of one modern Scandinavian language. Introduction to fairy tales and legends of Scandinavian tradition as a focus on interpretive methodologies that strive to answer question why do people tell stories that they tell? Concurrently scheduled with course C171. Letter grading.

M271. Study of Oral Traditions: History and Methods. (4) (Same as English M205A.) Seminar, three hours. Exploration of scholarly and literary attempts to study, define, analyze, promote, and/or appropriate oral traditions, from Homer and ancient Greece to origns of vernacular literatures, European romantic (re)discovery of oral tradition, 20th-century heuristic models of oral composition, and modern-day electronic media and popular verbal genres, such as joking and hip-hop. S/U or letter grading.

M272. Collecting Oral Tradition. (4) (Same as English M205B.) Seminar, three hours. Description and evaluation of various modern approaches to collecting and documenting oral tradition as text, performance, and sociocultural event. Consideration of approaches ranging from written transcription and textualization to audio and video presentation. S/U or letter grading.

M273. Studies in Oral Traditional Genres. (4) (Same as English M205C.) Seminar, three hours. Exploration in depth of variety and history of, and scholarship on, a particular oral tradition. (e.g., ballad, song, epic, proverb, riddle, folktale, legend) or a set of closely related oral traditional genres. S/U or letter grading.

M274A. Minority Cultures in Scandinavia. (4) Seminar, three hours. Exploration of emergence of immigrant cultures in Nordic region. Beginning in 1960s, large numbers of people from Turkey, Italy, and Pakistan began immigrating to Nordic countries, followed in subsequent decades by immigrants and refugees from Vietnam, India, Iran, Iraq, Afghanistan, Cambodia, and countries throughout Africa. Cultural landscape previously marked by relatively high degree of cultural homogeneity now characterized by broad cultural diversity. Examination of emergence of new voices in Nordic cultural landscape in wide range of cultural expressive media, including literature, film, and visual and performing arts. Exploration of emergence of new forms of Nordic languages, such as well-documented phenomenon of Rinkeney Swedish. Concurrently scheduled with course C174A. S/U or letter grading.

C280. Literature and Scandinavian Society. (4) Seminar, three hours. Designed for graduate students. Discussion of selected aspects of Scandinavian society based on readings of contemporary literature as well as historical and/or sociological material. May be repeated for credit (as determined by graduate advisor) with topic change. May be concurrently scheduled with course C180. Graduate students may meet for extra seminar hours and write research papers of greater length and depth. S/U or letter grading.

375. Teaching Apprentice Practicum. (1 to 4) Seminar, to be arranged. Preparation: apprentice personnel employed as teaching assistant, associate or fellow. Teaching apprenticeship under active guidance and supervision of regular faculty member responsible for curriculum and instruction at UCLA. May be repeated for credit. S/U grading.

596. Directed Individual Study or Research. (2 to 6) Tutorial, to be arranged with faculty member who directs the study or research. Limited to graduate Scandinavian students. Twelve units may be applied toward total course requirement, but only 4 units may be applied toward minimum graduate course requirement. May be repeated twice. S/U or letter grading.

597. Preparation for MA Comprehensive Examination or PhD Qualifying Examinations. (4 to 8) Tutorial, to be arranged with faculty member who directs the study or research. May be repeated once. May not be applied toward MA minimum course requirements. S/U grading.

599. Research for and Preparation of PhD Dissertation. (4) Tutorial, to be arranged with faculty member who directs the study or research. May be repeated. S/U grading.

SCIENCE EDUCATION

Interdisciplinary Minor
College of Letters and Science

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Science Education
310-794-2191

Minor e-mail
Patricia E. Phelps, PhD, Co-Chair
Arlene A. Russell, PhD, Co-Chair

Faculty Committee
Robert Cooper III, PhD (Education)
Gaston M.O. Pfleeg, PhD, ex officio (Life Sciences)
Patricia E. Phelps, PhD (Integrated Biology and Physiology)
Jody Z. Priselac, EdD (Graduate School of Education and Information Studies)
Arlene A. Russell, PhD (Chemistry and Biochemistry, Education)
Joshua F. Samani, PhD (Physics and Astronomy)

Scope and Objectives

The Science Education minor provides preparation for careers where teaching is an important component, including middle and high school, community college, university, or other science-related outreach careers. Students who wish to become middle or high school science teachers and who plan to teach as graduate students in their disciplines are the primary focus. The minor supplies the broad general science background included in California state subject matter credential examinations, education coursework, field experiences in the development, management, and teaching of science laboratory instruction in grades 7 through 12, and UCLA-based teaching practicums in lower-division science laboratory.

Undergraduate Study

Science Education Minor

Students eligible for admission to the Science Education minor should be making normal progress on the preparation for a major in the sciences or engineering whether they have declared such a major or not. They must have completed nine courses selected from the following, with at least one course from each of the four categories: (1) Chemistry and Biochemistry 1A4, 14B, 14L, 14CL (or 20A, 20B, 20L, 30A, 30AL), (2) Life Sciences 1, 2, 3 (or 7A, 7B, 7C), 23L, (3) Mathematics 3A, 31A or Life Sciences 30A, and (4) Physics 1A, 18, 4A, 4B or (5A, 5B, 5C). Prior participation in a supervised experience in schools is recommended.

To enter the minor, students must be in good academic standing with an overall grade-point average of 2.0 or better. Students must consult with the academic coordinator responsible for the minor to plan a coherent program to complete both the minor and their major, prior to filing a petition to enter the minor.

Required Lower-Division Courses (6 to 7 units): Science Education 105L and Earth, Planetary, and Space Sciences 1 (Earth, Planetary, and Space Sciences 101 or CI13 or Atmospheric and Oceanic Sciences 101 or 102 or 103 may be substituted for course 1).

Required Upper-Division Courses (22 units minimum): (1) Education 127, (2) Science Education 1005L, (3) at least one and no more than two courses selected from Chemistry and Biochemistry 192A, 192B, Life Sciences 192A, 192B, Physics 192, Physiological Science 192, and (4) at least one and no more than two courses selected from Education M102, M103, M108, 123, C125, 130, 132, 133, 134, 164, 166, M194A.

A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor, and at least 16 units must be taken in residence at UCLA.

Each minor course, except Science Education 105L, must be taken for a letter grade, with a grade of C or better in each, and students must have an overall grade-point average of 2.0 or better in the minor. Successful completion of the minor is indicated on the transcript and diploma.
Science Education

Upper-Division Courses

189HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to upper-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

SLAVIC, EAST EUROPEAN, AND EURASIAN LANGUAGES AND CULTURES

Scope and Objectives

The Department of Slavic, East European, and Eurasian Languages and Cultures offers a wide array of courses in the languages and cultures of Russia and of central and eastern Europe. Instruction is offered in Czech, Hungarian, Polish, Romanian, Russian, Serbian/Croatian, and Ukrainian to provide students with the necessary linguistic skills to pursue advanced work in the literature, culture, history, politics, and social structures of these areas. Students have the choice of several majors and minors and the opportunity to enhance their knowledge and skills through programs of study abroad.

The department offers two majors in Russian. The Russian Language and Literature major is designed to provide students with basic mastery of the Russian language and familiarity with the classics of Russian literature. Students typically begin to study Russian in their first year, but those contemplating a Russian major later in their academic program can fulfill the Russian language requirement by combining regular coursework with summer programs or with the University of California Education Abroad Program (EAP) in Moscow, which is open to students who have completed the equivalent of one or more years of study (level I on the American Council on Teaching of Foreign Languages [ACTFL] scale). Students interested in this program should consult with the undergraduate adviser as early as possible.

The major in Russian Studies is designed for students who wish to complement mastery of the language with an array of courses on Russian history, politics, literature, and culture.

The major in Central and East European Languages and Cultures is designed to provide students with a mastery of two languages of central or eastern Europe and familiarity with the literature, as well as general background in the cultural, political, and social history of the Slavic peoples.

The graduate program provides advanced training in Slavic literatures and linguistics leading to the MA and PhD degrees in Slavic, East European, and Eurasian Languages and Cultures. The primary task of the department faculty is to develop and refine the critical and analytic skills of its students in preparation for productive careers in college teaching and research in the Slavic field. Alternative careers include language teaching, business, translation, interpreting, librarianship, and government service.

The department offers three majors: (1) Central and East European Languages and Cultures, (2) Russian Language and Literature, and (3) Russian Studies. The equivalent of a major in Central and East European Languages and Cultures or Russian Language and Literature is normally required for admission to the department graduate program and is used to determine the number of courses in Russian literature and/or linguistics that students majoring in Russian Studies are expected to make up in order to receive graduate degrees in the department. Students not majoring in Central and East European Languages and Cultures or Russian Language and Literature who intend to pursue graduate study in the department are strongly encouraged to take courses in Russian literature and linguistics during their undergraduate years to reduce the number of makeup courses required. Qualified seniors may also take graduate courses numbered below 220 with consent of the instructor and the graduate and undergraduate advisers.

The three majors offered in the department are designated capstone majors. Students majoring in Central and East European Languages and Cultures, Russian Language and Literature, and Russian Studies must complete a capstone seminar and present their final paper in the department annual Undergraduate Research Conference. Students draw on their previous acquired subject matter knowledge.
Central and East European Languages and Cultures BA

Preparation for the Major
Required: Central and East European Studies 91 or Slavic 90.

Transfer Students
Transfer applicants to the Central and East European Languages and Cultures major with 90 or more units must complete the following introductory course prior to admission to UCLA: one culture, history, or civilization course on one or more European nations.

Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

The Major
Required: (1) One three-quarter (12 to 15 units) introductory central and east European language sequence, or one 12-unit intensive introductory central and east European language course, to be selected from Czech 101A, 101B, 101C, Hungarian 101A, 101B, 101C, Polish 101A, 101B, 101C, Romanian 101A, 101B, 101C, 103, Serbian/Croatian 101A, 101B, 101C, 103, or Ukrainian 101A, 101B, 101C; (2) one three-quarter (12 to 15 units) language sequence to be selected from Czech 102A, 102B, 102C, Hungarian 102A, 102B, 102C, Polish 102A, 102B, 102C, Romanian 102A, 102B, 102C, Serbian/Croatian 102A, 102B, 102C, or Ukrainian 102A, 102B, 102C, or any three courses from Russian 100A, 100B, 100C, 101A, 101B, 101C, 102A, 102B, 102C, 103A, 103B, 130A, 140A; (3) three courses (12 units) from the following list (187 courses are 2 units each; no more than 8 units may be from the 187 series): Central and East European Studies M120, 125, 126, Czech 155, 187A through 187M, History 120A through 120D, Hungarian 187A through 187M, Polish 152A, 152B, 152C, 187A through 187M, Romanian 152S, 187A through 187M, Russian C124G, Croatian 187A through 187M, Ukrainian 152S, 187A through 187M; one of the three courses may be selected from Russian M118, 119, 120, 124C, 124D, 124N, 124T.

During their senior year, students must also take Slavic 191TA, 191TB, and 191TC in which they complete a capstone senior thesis. Students may petition to substitute courses after consulting with the undergraduate adviser. Each major course must be taken for a letter grade, and students must have an overall grade-point average of 2.0 or better.

Russian Language and Literature BA

Preparation for the Major
Required: Russian 6 or 20 or equivalent proficiency, one course from 25, 25W, 90A, 90B, or 90BW.

Transfer Students
Transfer applicants to the Russian Language and Literature major with 90 or more units must complete the following introductory courses prior to admission to UCLA: two years of Russian and one Russian civilization course.

Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

The Major
Required: Ten courses (44 to 47 units), including (1) three Russian language courses selected from Russian 100A, 100B, 100C, 101A, 101B, 101C, 102A, 102B, 102C, 103A, 103B, 103C, 107A, 107B, 107C, 108 (consult with the undergraduate adviser for appropriate placement); (2) five Russian literature and culture courses selected from 119, 120, 121, 129, 130A, 130B, 130C, 140A through 140D; and (3) two additional Russian language and/or literature courses selected from 102A, 102B, 102C, 103A, 103B, 103C, 107A, 107B, 107C, 108, M118, 122, 122C, 124D, 124G, 124N, 124P, 124T, M127, Slavic CM114. During their senior year, students must also take Slavic 191TA, 191TB, and 191TC in which they complete a capstone senior thesis. Students may petition to substitute courses after consulting with the undergraduate adviser. Each major course must be taken for a letter grade, and students must have an overall grade-point average of 2.0 or better.

Russian Studies BA

Preparation for the Major
Required: Russian 6 or 20 or equivalent proficiency, one course from 25, 25W, 90A, 90B, or 90BW.

Transfer Students
Transfer applicants to the Russian Studies major with 90 or more units must complete the following introductory courses prior to admission to UCLA: two years of Russian and one Russian civilization course.

Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

The Major
Honors Program

The honors program is designed for exceptional departmental majors who wish to complete a research project that culminates in an honors thesis.

Admission

The honors program is open to departmental majors with a 3.5 grade-point average in upper-division courses in the major and a 3.0 overall GPA. Students should apply for admission by spring quarter of their junior year. At the time of admission, students must have completed at least two upper-division courses in their major. Prior to admission to the honors program, students must identify a faculty adviser, who must be a regular member of the UCLA faculty. The faculty adviser must commit to mentoring the student for the duration of the program. Students must also write a two-page proposal of the project, to be approved by the faculty adviser and submitted with the application form.

Requirements

The honors program is a three-term sequence (Slavic 191TA, 191TB, 191TC), taken in addition to requirements for the major. The courses must be taken during senior year (fall, winter, and spring terms respectively). Students pursuing departmental honors must submit the contract for each course by the end of the tenth week of the previous quarter. The sequence culminates in the submission of a capstone senior thesis. Students may petition to substitute courses after consulting with the undergraduate adviser.

The honors program is designed for exceptional departmental majors who wish to complete a research project that culminates in an honors thesis.

Central and East European Studies Minor

The Central and East European Studies minor is designed for students who wish to augment their major program of study in the College of Letters and Sciences with exposure to a variety of disciplines pertinent to the study of central and eastern Europe, including language, literature, history, political science, folklore, ethnomusicology, and women’s studies.

The minor must be taken in good academic standing (2.0 minimum grade-point average) and file a petition with the department counselor in 3228 Kaplan Hall, 310-825-3856.

Required Upper-Division Courses (5 units):
- Central and East European Studies 91 or Slavic 90.

Required Upper-Division Courses (28 to 31 units):
- Three one-quarter introductory central and east European language course, to be selected from Czech 101A, 101B, 101C, Hungarian 101A, 101B, 101C, Polish 101A, 101B, 101C, Romanian 101A, 101B, 101C, 103, Serbian/Croatian 101A, 101B, 101C, 103, or Ukrainian 101A, 101B, 101C (students who demonstrate sufficient fluency in one of these languages through departmental testing are exempt from this three-course sequence and must replace it with a minimum of 12 units of language courses from item 3); (2) one course dealing directly with the target culture to be selected from Central and East European Studies M120, 125, 126, Czech 155, History 120A through 120D, Polish 152A, 152B, 152C, Romanian 152, Russian 114, 124, 125, 126, 128B, 130A, 130B, 130C, 140A through 140D.

Required Lower-Division Courses (9 to 17 units):
- Russian 6 or 20 or equivalent proficiency, one course from 25, 25W, 90A, 90B, or 90BW.

Required Upper-Division Courses (20 to 23 units):
- Students select one of the following options: (1) Russian 101A, 101B, 101C, 101D and two additional Russian language or literature courses; (2) Russian 100A, 100B, 100C and two additional Russian language or literature courses; or (3) five Russian language and literature courses selected from 102A, 102B, 102C, 103A, 103B, 103C, 107A, 107B, 107C, 130A, 130B, 130C, 140A through 140D, with a minimum of three courses in Russian language.

A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor.

Russian Language Minor

To enter the Russian Language minor, students must have an overall grade-point average of 2.0 or better.

Required Lower-Division Courses (9 to 17 units):
- Russian 3 or 10 or equivalent proficiency, one course from 25, 25W, 30, 31, 32, 90A, 90B, or 90BW.

Required Upper-Division Courses (20 units):
- Five Russian language and literature courses, including at least two from Russian M118, 119, 120, 130A, 130B, 130C, 140A through 140D.

Students may petition to substitute courses after consulting with the undergraduate adviser.

A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor.

Russian Studies Minor

To enter the Russian Studies minor, students must have an overall grade-point average of 2.0 or better.
Upper-Division Courses

101A-101B-101C. Elementary Bulgarian. (5-6-5) Lecture, five hours. Course 101A is recommended preparation for 101B, which is recommended preparation for 101C. Each course may be waived with consent of instructor. Background in Bulgarian language. P/NP or letter grading.

189. Advanced Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to undergraduate lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

189HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to upper-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

Central and East European Studies

Lower-Division Courses

19. Fiat Lux Freshman Seminars, (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

31. Introduction to Slavic, East European, and Central Asian Cultures through Film. (4) Lecture, three hours; discussion, one hour. Interdisciplinary introduction to diversity of languages and cultures represented in Department of Slavic, East European, and Eurasian Languages and Cultures through medium of film. P/NP or letter grading.

89. Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to lower-division lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

89HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to lower-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

91. Culture and Society in Central and Eastern Europe. (5) Lecture, three hours; discussion, one hour. Introductions to modern Central and Eastern European studies to main themes and concepts of central and east European studies, including historical background, nation states and ethnic groups, languages spoken in area, and culture and politics of communist and post-communist periods: religion, literature, mass media, music, art, and cinema. P/NP or letter grading.

99. Student Research Program. (1 to 2) Tutorial (supervised research or other scholarly work), three hours per week per unit. Entry-level research for lower-division students under guidance of faculty mentor. Students must be in good academic standing and enrolled in minimum of 12 units (excluding this course). Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP grading.
Czech

Lower-Division Courses
19. Fiat Lux Freshman Seminars. (1 Seminar) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP or letter grading.

189. Honors Seminars. (1 Seminar) Seminar, three hours. Limited to 20 students. Designed as adjunct to lower-division lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

189HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to upper-division course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual independent study required. Honors content noted on transcript. Letter grading.

Hungarian

Lower-Division Courses
19. Fiat Lux Freshman Seminars. (1 Seminar) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP or letter grading.

89HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to lower-division lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities. May be repeated for credit. Individual contract required. P/NP or letter grading.

Hungarian

Upper-Division Courses
101A-101B-101C. Introduction to Czech Language and Culture. [5–5–5] Lecture, five hours. Course 101A is recommended preparation for 101B, which is recommended preparation for 101C. Each course may be waived with consent of instructor. Beginning Czech language courses with strong cultural component. P/ NP or letter grading.

102A-102B-102C. Advanced Czech. (4–4–4) Lecture, three hours. Recommended preparation: course 101C (may be waived with consent of instructor). Course 102A is recommended preparation for 102B, which is recommended preparation for 102C. Each course may be waived with consent of instructor. P/ NP or letter grading.


105. Survey of Czech Literature from Middle Ages to Present. (4 Lecture, three hours. Lectures and readings in English. P/NP or letter grading.

187A. Advanced Tutorial Instruction in Hungarian. (2 Tutorial, one hour; laboratory, one hour. Enforced requisites: course 102C or Czech placement test. Tutorial and guided independent study of advanced Czech: advanced conversational composition, vocabulary development, and review of selected grammar topics. May be repeated for credit with topic change. P/NP or letter grading.

187B-187M. Advanced Tutorial Instruction in Hungarian. (2 Tutorial, one hour; laboratory, one hour. Preparation: prior course in sequence or Czech placement test. Tutorial and guided independent study of advanced Hungarian: advanced conversational composition, vocabulary development, and review of selected grammar topics. May be repeated for credit with topic change. P/NP or letter grading.

189. Advanced Honors Seminars. (1 Seminar) Seminar, three hours. Limited to 20 students. Designed as adjunct to undergraduate lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

189HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to upper-division lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

189HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to upper-division lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

Lithuanian

Lower-Division Courses
19. Fiat Lux Freshman Seminars. (1 Seminar) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP or letter grading.

89HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to lower-division lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities. May be repeated for credit. Individual contract required. P/NP or letter grading.

Hungarian

Upper-Division Courses
101A-101B-101C. Elementary Lithuanian. (4–4–4) Lecture, three to four hours. Course 101A is recommended preparation for 101B, which is recommended preparation for 101C. Each course may be waived with consent of instructor. Introduction to grammar; instruction in speaking, listening, and writing. P/NP or letter grading.

102A-102B-102C. Advanced Lithuanian. (4–4–4) Lecture, three hours. Recommended preparation: course 101C (may be waived with consent of instructor). Course 102A is recommended preparation for 102B, which is recommended preparation for 102C. Each course may be waived with consent of instructor. P/NP or letter grading.

121. Survey of Lithuanian Literature in Translation. (4 Lecture, three hours. Designed for students in general and comparative literature, as well as students interested in Finno-Ugric studies. Survey of main trends and current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP or letter grading.

187A. Advanced Tutorial Instruction in Lithuanian. (2 Tutorial, one hour; laboratory, one hour. Preparation: two years of Hungarian and/or Hungarian placement test. Tutorial and guided independent study of advanced Hungarian: advanced conversational composition, vocabulary development, and review of selected grammar topics. May be repeated for credit with topic change. P/NP or letter grading.

187B-187M. Advanced Tutorial Instruction in Lithuanian. (2 Tutorial, one hour; laboratory, one hour. Preparation: prior course in sequence or Hungarian placement test. Tutorial and guided independent study of advanced Hungarian: advanced conversational composition, vocabulary development, and review of selected grammar topics. May be repeated for credit with topic change. P/NP or letter grading.

Slavic, East European, and Eurasian Languages and Cultures / 717
Advanced Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to undergraduate lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be repeated for credit with topic change. Honors content noted on transcript. P/NP or letter grading.

189H. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to upper-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

189HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to lower-division lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

189HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to lower-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

Student Research Program. (1 to 2) Tutorial (supervised research or other scholarly work), three hours per week per unit. Entry-level research for lower-division students under guidance of faculty mentor. Students must be in good academic standing and enrolled in minimum of 12 units (excluding this course). Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP grading.

Upper-Division Courses

101A-101B-101C. Elementary Romanian. (5–5–5) Lecture, five hours. Course 101A is recommended preparation for 101B, which is recommended preparation for 101C. Each course may be waived with consent of instructor. Basic courses in Romanian language. P/NP or letter grading.

102A-102B-102C. Advanced Romanian. (5–5–5) Lecture, five hours. Recommended preparation: course 101C (may be waived with consent of instructor). Course 102A is recommended preparation for 102B, which is recommended preparation for 102C. Each course may be waived with consent of instructor. P/NP or letter grading.

152A-152B-152C. Survey of Romanian Literature. (4–4–4) Lecture, three hours. Recommended preparation: course 101C (may be waived with consent of instructor). Course 152A is recommended preparation for 152B, which is recommended preparation for 152C. Each course may be waived with consent of instructor. P/NP or letter grading.

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

Reimagining a Nation. Readings and research to be included in readings. P/NP or letter grading.

Advanced Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to undergraduate lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

Advanced Tutorial Instruction in Polish. (2) Tutorial, one hour; laboratory, one hour. Preparation: prior course in sequence or Polish placement test. Tutorial and guided independent study of advanced Polish: advanced conversation, composition, vocabulary development, and review of selected grammar topics. Honors content noted on transcript. P/NP or letter grading.

Advanced Tutorial Instruction in Polish. (2) Tutorial, one hour; laboratory, one hour. Preparation: prior course in sequence or Polish placement test. Tutorial and guided independent study of advanced Polish: advanced conversation, composition, vocabulary development, and review of selected grammar topics. Honors content noted on transcript. P/NP or letter grading.

Advanced Tutorial Instruction in Romanian. (2) Tutorial, one hour; laboratory, one hour. Preparation: prior course in sequence or Romanian placement test. Tutorial and guided independent study of advanced Romanian: advanced conversation, composition, vocabulary development, and review of selected grammar topics. Honors content noted on transcript. P/NP or letter grading.

Advanced Tutorial Instruction in Romanian. (2) Tutorial, one hour; laboratory, one hour. Preparation: prior course in sequence or Romanian placement test. Tutorial and guided independent study of advanced Romanian: advanced conversation, composition, vocabulary development, and review of selected grammar topics. Honors content noted on transcript. P/NP or letter grading.

Advanced Tutorial Instruction in Romanian. (2) Tutorial, one hour; laboratory, one hour. Preparation: prior course in sequence or Romanian placement test. Tutorial and guided independent study of advanced Romanian: advanced conversation, composition, vocabulary development, and review of selected grammar topics. Honors content noted on transcript. P/NP or letter grading.

Russian

Lower-Division Courses

1. Elementary Russian. (5) Recitation, five hours; laboratory, one hour. P/NP or letter grading.

2. Elementary Russian. (5) Lecture, five hours; laboratory, one hour. Requisite: course 1 or Russian placement test. P/NP or letter grading.

3. Elementary Russian. (5) Lecture, five hours; laboratory, one hour. Requisite: course 2 or Russian placement test. P/NP or letter grading.

4. Intermediate Russian. (5) Lecture, five hours; laboratory, one hour. Requisite: course 3 or Russian placement test. P/NP or letter grading.

5. Intermediate Russian. (5) Lecture, five hours; laboratory, one hour. Requisite: course 4 or Russian placement test. P/NP or letter grading.
6. Intermediate Russian. (5) Lecture, five hours; lab -oratory, one hour. Prerequisite: course 5 or Russian placement test. P/NP or letter grading.

10. Intensive Elementary Russian. (12) Lecture, 19 hours. Intensive basic course in Russian language equivalent to courses 1, 2, 3. P/NP or letter grading.

15A-15B. Intensive Russian. (6-6) Recitation, five hours; laboratory, two hours. Materials of first-year Russian course to be covered in two terms, with extensive use of language laboratory and the Russian language Abroad. P/NP or letter grading.

19. Fiat Lux Freshman Seminars. (1) Seminar; one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

20. Intensive Intermediate Russian. (12) Lecture, 19 hours. Intermediate instruction in reading, writing, and speaking Russian equivalent to courses 4, 5, 6, P/NP or letter grading.

25. Great Russian Novel. (5) Lecture; three hours; discussion, one hour. Not open for credit to students with credit for course 25W. Designed for nonmajors. Knowledge of Russian not required. Study of major works of 19th-century Russian novelists. P/NP or letter grading.

25W. Great Russian Novel. (5) Lecture; three hours; discussion, one hour. Prerequisite: English Composition 3. Not open for credit to students with credit for course 25W. Designed for nonmajors. Knowledge of Russian not required. Study of major works by great 19th-century Russian novelists. Satisfies Writing II requirement. Letter grading.

30. Russian Literature and World Cinema. (4) Lecture, three hours; discussion, one hour. Examination of Russian literary masterpieces and their screen adaptations in various national cinematic traditions, with focus on problems of perception and misperception arising when literature is translated into cinema, and one national culture is viewed through the eyes of another. P/NP or letter grading.

31. Introduction to Russian Film. (5) Lecture, three hours; discussion, one hour; film screening, two hours. Key works, names, events, and concepts of Russian cinematic tradition. Development of skills in analyzing and interpreting films and acquisition of critical terminology of film studies. How film form and aesthetics are conditioned by technology, ideology, economics, theory, tradition, and culture. How cinema in Russia has created and contested narratives of history and identity, and how these interests change, and how it has shaped them. P/NP or letter grading.

32. Russia and Asia: Cultural Dialogues. (5) Lecture; three hours; discussion, one hour. Since end of Soviet Union, cultural and political flux within non-Christian lands neighboring Russia has occurred dra-matically. Given radical rejection of Russian heritage in most former Soviet territories, key distinctions in human- ities have become unclear, including fundamental confusion between limits of Slavic and Near Eastern studies. Examination of relation of Russia’s culture to its borders: Caucasus, Central Asia, China, and Japan. P/NP or letter grading.

98. Honors Seminars. (1) Seminar, three hours. Lim- ited to approved students designated as adjunct to lower-division lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible stu- dents. Honors content noted on transcript. P/NP or letter grading.

89HC. Honors Contracts. (1) Tutorial, three hours. Limited to approved Honors Program students. Desig- ned as adjunct to lower-division lecture course. Indi- vidual study with lecture course instructor to explore topics in greater depth through supplemental read- ings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract re- quired. Honors content noted on transcript. Letter grading.

90A. Introduction to Russian Civilization. (5) Lecture; three hours; discussion, one hour. Introduction to Russian culture and society from earliest times to 1917. P/NP or letter grading.

90B. Russian Civilization in 20th Century. (5) Lecture; three hours; discussion, one hour. Not open for credit to students with credit for course 90BW. Survey of literature, theater, cinema, television, press, music, and arts. Emphasis on contemporary period, with con- stant reference to Russian and early Soviet anteced- ents. P/NP or letter grading.

90BW. Russian Civilization in 20th Century. (5) Lecture; three hours; discussion, one hour. Prerequisite: En- glish Composition 3. Not open for credit to students with credit for course 90BW. Survey of literature, theater, cinema, television, press, music, and arts. Emphasis on contemporary period, with constant reference to Russian and early Soviet antecedents. Weekly discussions focus on varied approaches to writing ad- dressing class topics. Five short papers required. Satis- fies Writing II requirement. Letter grading.

99. Student Research Program. (1 to 2) Tutorial (su- pervised research or other scholarly work), three hours per week under research supervision for lower-divi- sion students under guidance of faculty mentor. Stu- dents must be in good academic standing and en- rolled in minimum of 12 units (excluding this course). Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP grading.

Upper-Division Courses

100A-100B-100C. Literacy in Russian. (4–4–4) Lecture, three hours. Course 100A or Russian placement test is enforced requisite to 100C. For students who speak Russian but have difficulty reading and writing. Focus on improving reading and writing skills, increasing vocabulary, and developing speaking skills required for academic discourse. P/NP or letter grading.

101A-101B-101C. Third-Year Russian. (5–5–5) Lecture, three hours; discussion, two hours. Enforced re- quirement; course 6 is Russian placement placement. Course 101A or Russian placement test is enforced requisite to 101B; course 101B or Russian placement test is en- forced requisite to 101C. Advanced grammar, reading, and conversation, with strong multimedia component. P/NP or letter grading.

102A-102B-102C. Topics in Advanced/Superior Russian. (4–4–4) Lecture, three hours. Enforced re- quirements: course 101C or Russian placement test. Course 102A or Russian placement test is enforced requisite to 102B; course 102B or Russian placement test is en- forced requisite to 102C. Discussion and composition, with emphasis on vocabulary development and review of basic grammar rules. Reading of literature in translation and nonfiction, films, and videos, and use of Internet. Each course may be taken independently and may be repeated for credit. P/NP or letter grading.

103A-103B-103C. Russian for Native and Near-Na- tive Speakers. (4-4-4) Lecture, three hours. Course 103A is not requisite to 103B, which is not requisite to 103C. Improvement of oral and written language skills, emphasizing correct and diversified use of language and communicative skills in social and academic contexts. May be repeated for credit with topic and/or instructor change. P/NP or letter grading. 103A, Russian Na- tional Identity. Readings in literature, philosophy, criti- cism, film. 103B. Literature and Film. Adaptation of Russian literature. Readings and screenings. 103C. Special Topics.

107A-107B-107C. Russian for Social and Cultural Observation Abroad. (4-4-4) Lecture, three hours. Recommended preparation: third-year Russian. Lectures and readings in Russian. Exploration of texts and media in social sciences and culture, with emphasis on press, television, radio, Internet. Each course may be taken in- dependently and may be repeated for credit. P/NP or letter grading.


111A-111B-111C. Russian Flagship Program Abroad: Superior Russian. (5–5–5) Lecture, three hours. Enforced requisite course 110 or equivalent coursework determined by department. Course 111A is not requisite to 111B, which is enforced requisite to 111C. Taught in Russian. Designed for stu- dents with advanced proficiency. Development of skills in Russian phonetics, conversation, and grammatical structures of advanced level. Satisfies Writing II requirement. Letter grading.

112A-112B-112C. Russian Flagship Program Abroad: Advanced Russian. (4–4–4) Lecture, three hours. Enforced requisite course 110 or equivalent coursework determined by department. Course 112A is not requisite to 112B, which is enforced requisite to 112C. Taught in Russian. Critical reading, analysis, and discussion of Russian literature, with exposure to Russian cultural and intellectual norms. Readings and essays, with emphasis on formal and academic writing. P/NP or letter grading.

113A-113B-113C. Russian Flagship Program Abroad: Professional and Academic Russian and Experiential Learning. (5–5–5) Lecture, three hours. Enforced requisite course 110 or equivalent coursework determined by department. Course 113A is not requisite to 113B, which is enforced requisite to 113C. Taught in Russian. Use of discourse practices (speaking, listening, reading, and writing) to par- ticipate effectively in discussions of professional topics and situations outside of course. Opportunity to communicate in Russian in authentic contexts by par- ticipating in courses with local students, providing ser- vices to community, or internings in one business. Letter grading.

M118. History of Russia, Origins to Rise of Musco- vy. (4) Same as History M127A. Lecture, three hours; discussion, one hour. Taught in Russian. Designed for juniors/seniors. Kievan Russia and its culture, Appa- nage principalities and towns; Mongol invasion; uni- fication of Russian state by Muscovy, Autocracy and its Servitors; serfdom. P/NP or letter grading.

119. Golden Age and Great Realists. (4) Lecture, three hours. Designed for juniors/seniors. Russian ma- jors are advised to take this course in their sophomore year. Lectures and readings in English. Survey of 19th- century Russian literature (Pushkin, Gogol, Tolstoy, Dostoevsky, Chekhov) in its cultural, political, and so- cial contexts. P/NP or letter grading.

120. Literature and Revolution. (4) Lecture, three hours. Designed for juniors/seniors. Russian majors are advised to take this course in their sophomore year. Lectures and readings in English. Major works of the 20th century (Belyi, Pasternak, Bulgakov, Solzhe- nitsyn, and others) from prerevolutionary avant- gardiste to the present. P/NP or letter grading.

121. Russian Pop Culture. (5) Lecture, three hours. Designed for juniors/seniors. Lectures and readings in English. Overview of Russian popular culture today, with examination of status of Russia’s classical repertoire. P/NP or letter grading.

122. Siberia. (5) Lecture, three hours. Introductory survey of the region which currently is culturally and historically isolated and which have geographic and historical back-
ground, including analysis of Siberian human geography before first contact with European colonizers and development of modes of interaction among different cultural groups. Reading in English of selection of literary works by well-known 20th-century Siberian writers whose texts serve as focal points for close examination of Siberian regional literary culture and ecological network within which it exists. Letter grading.


C124D. Studies in Russian Literature: Dostoevsky. (4) Lecture, three hours. Lectures and readings in English. In-depth reading of major fictional works such as Crime and Punishment. Notes from the Underground, and The Brothers Karamazov. Concurrently scheduled with course C224D. P/NP or letter grading.


C124N. Studies in Russian Literature: Nabokov. (4) Lecture, three hours. Lectures and readings in English. Russian novelist (Lolita), American novelist (Speak Memory), and critic. Concurrently scheduled with course C227. P/NP or letter grading.

C124P. Studies in Russian Literature: Pushkin. (4) Lecture, three hours. Lectures and readings in English. Major works in all genres, including lyric poetry, narrative poems, plays, prose fiction, and selected letters. Concurrently scheduled with course C224P. P/NP or letter grading.

C124T. Studies in Russian Literature: Tolstoy. (4) Lecture, three hours. Lectures and readings in English. Early and late stories and novellas, excerpts from the diaries and one major novel such as War and Peace or Anna Karenina. Concurrently scheduled with course C224T. P/NP or letter grading.


127. Women in Russian Literature. (4) (Same as Gender Studies M127.) Lecture, three hours. Designed for juniors/seniors. Lectures and readings in English. Introduction to alternative tradition of women’s writings in Russia and Soviet Union. Emphasis on images of women expressed in this tradition as compared with those found in works of contemporary male writers. P/NP or letter grading.


129. Animation and Music Video. (5) Lecture, three hours; discussion, one hour. Designed for juniors/seniors. Lectures and readings in English. Humanities have recently passed through so-called visual turn: traditional emphases on language(s) in field have been reconsidered by increasing interest in visual, audiovisual, and multimodal traditions needed to be ironed out, visual often plays special role in social cohesion. Because of past politics and today’s profit-driven events, small fickle forms of visual narrative reflective and social change much better than ponderous feature-length genre movies. Letter grading.

130A-130B-130C. Russian Poetry. (4-4-4) Lecture, three hours. Preparation: third-year Russian recommended. Lectures and readings in Russian. May be repeated for credit with topic and/or instructor change. 130A. Introduction to Analysis of Russian Poetry. Role of biography, cultural subtexts, rhetoric, and form in interpreting poetic texts. 130B. Poetry of Russian Neoclassicism, Romanticism, and Realism. Major works of late 18th and 19th centuries in their historical and cultural context. 130C. Russian Poetry in the 20th Century. Major poetic schools from early modernism (symbolism, futurism, acmeism) to contemporary avant-garde.

131. History of Russian Cinema. (4) Lecture, three hours. Overview of most popular art form in world’s largest nation to show how cinema struggled under inconstant capitalism in Russia, how moviemaking on other side of world departed from path marked out by Hollywood and London, how films operate as form of nationwide persuasion, relationship between word and image in those acts of persuasion, how even frightening dogma cannot escape importance of audience desire(s), different forms of social existence as refuge from both capitalism and communism, and what values of world’s biggest country are. Role of language in self-definition, verbal or visual matters? P/NP or letter grading.

132. Comparative Media Studies. (4) (Same as Comparative Literature M132.) Lecture, three hours. History, form, and function of various media. Groundbreaking in political experience of eastern Europe, comparative investigation of media technologies, today’s burgeoning markets, and yesterday’s tragic abuses. Development of media form(s) and content across various times, places, and cultures, with special attention to Slavic phenomena. Letter grading.


C170. Russian Folklore. (3 to 5) Lecture, three hours. Lectures and readings in English. General introduction to Russian folklore, including survey of genres and related folkloric phenomena. Concurrently scheduled with course C2240. P/NP or letter grading.

178A. Advanced Tutorial Instruction in Russian. (2) Tutorial, one hour; laboratory, one hour. Enforced requisites: courses 102C or Russian placement test. Tutorial: and guided independent study of advanced Russian: advanced conversation, composition, vocabulary development, and review of selected grammar topics. May be repeated for credit with topic and replacement of P/NP or letter grading.

178B-178T. Advanced Tutorial Instruction in Russian. (2 each) Tutorial, one hour; laboratory, one hour. Preparation: prior course in sequence or Russian placement test. Tutorial: and guided independent study of advanced Russian: advanced conversation, composition, vocabulary development, and review of selected grammar topics. May be repeated for credit with topic and replacement of P/NP or letter grading.

189. Advanced Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to undergraduate lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

198HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Design as adjunct to undergraduate course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

191. Variable Topics Research Seminars: Russian Literature. (4) Seminar, four units. May be repeated for credit with topic and/or instructor change. P/NP or letter grading.

Graduate Courses

201A-201B-201C. Russian: Vocabulary, Pronunciation, Style. (4-4-4) Lecture, three hours. Requisites: course 102C. Conducted in Russian. Reading and analysis of texts with focus on vocabulary, pronuncia-


211. Literature of Medieval Rus’. (4) Lecture, three hours. Required for MA (literature). Survey of the literature from its beginning through the 17th and Muscovite periods up to end of the 17th century.

218. 18th-Century Russian Literature. (4) Lecture, three hours. Required for MA (literature). Lectures and readings in major and secondary writers. Analysis of related literary works.

212A-212B. 19th-Century Russian Literature. (4-4) Lecture, three hours. S/U or letter grading.

212A. Golden Age. Lecture, three hours. Required for MA (literature). Survey of major literary movements and schools following demise of neoclassicism: sentimental school, early and late Romanticism, and beginn-

213A-213B. 20th-Century Russian Literature, 1890 to 1929. (4) Lecture, three hours. Required for MA (litera-

ture). Lectures and readings in major literary trends of modernist period, such as decadence, symbolism, futurism, acmeism, and ornamental school. Analysis of representative works by Blok, Bely, Khlebnikov, Parnas, Platonov, and others. S/U or letter grading.


Serbian/Croatian

Upper-Division Courses

101A-101B-101C. Elementary Serbian/Croatian. (5-5-5) Lecture, five hours. Course 101A is recommended preparation to 101B. Course 101C is recommended preparation for 101C. Each course may be waived with consent of instructor. Basic courses in Serbian/Croatian. P/NP or letter grading.

102A-102B-102C. Advanced Serbian/Croatian. (4-4-4) Lecture, three hours. Recommended preparation: course 101C (may be waived with consent of instructor). Course 102A is recommended preparation for 102B, which is recommended preparation for 102C. Each course may be waived with consent of instructor. P/NP or letter grading.


154. South Slavic Literature. (4) Lecture, three hours. Lectures and readings in English. Survey of South Slavic literature from Middle Ages to the present. P/NP or letter grading.

187A. Advanced Tutorial Instruction in Serbian/Croatian. (2) Tutorial, one hour; laboratory, one hour. Enforced requisites: course 102C or Serbian/Croatian placement test. Tutorial and guided independent study of advanced Serbian/Croatian: advanced conversation, composition, vocabulary development, and review of selected grammar topics. May be repeated for credit with topic change. P/NP or letter grading.

187B-187M. Advanced Tutorial Instruction in Serbian/Croatian. (2 each) Tutorial, one hour; laboratory, one hour. Preparation: prior course in sequence or Serbian/Croatian placement test. Tutorial and guided independent study of advanced Serbian/Croatian: advanced conversation, composition, vocabulary development, and review of selected grammar topics. May be repeated for credit with topic change. P/NP or letter grading.

189. Advanced Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to undergraduate lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

189HC. Honors Contracts. (1) Seminar, three hours. Limited to students in College Honors Program. Designed as adjunct to upper-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

Slavic

Lower-Division Courses

5. Introduction to Eurasia. (5) Lecture, three hours; discussion, one hour (when scheduled). Interdisciplinary survey of Eurasia. Introduction to history, culture, and geography of diverse area that is often vaguely understood as not quite Europe and not quite Asia, yet both at the same time home to several of history’s most powerful overland empires, as well as its most notorious figures: Genghis Khan, Alexander the Great, Ivan the Terrible, and others. Exploration of contemporary issues in modern states of Russia, China, Mongolia, Kazakhstan, Uzbekistan, Tajikistan, Iran, and Azerbaijan. P/NP or letter grading.

19. Fiat Lux Freshman Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to upper-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.
May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

89HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to lower-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

90. Introduction to Slavic Civilization. (5) Lecture, three hours; discussion, one hour. Introductory survey of social and cultural aspects of Slav peoples and their historical background. P/NP or letter grading.

99. Student Research Program. (1 to 2) Tutorial (supervised research or other scholarly work), three hours per week per unit. Entry-level research for lower-division students under guidance of faculty mentor. Students must be in good academic standing and enrolled in minimum of 12 units (excluding this course). Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP grading.

Upper-Division Courses

CM114. Teaching and Learning of Heritage Languages. (4) (Same as Asian CM124 and Near Eastern Languages and Literatures CM114.) Lecture, three hours. Consideration of issues relevant to heritage language learners (HLLs) and heritage (HL) instruction. Review and discussion on such topics as definitions of HLLs and HLs; linguistic, demographic, sociolinguistic, and sociocultural profile of HLs, particularly HL groups most represented among UCLA students; institutional and instructor attitudes toward HLLs; impact of student motivation and expectations on HL curriculum and teaching approaches; similarities and differences between HL and foreign language learners (FLLs) regarding teaching methods and materials; diagnostic testing and needs analysis; use of oral/aural proficiency as springboard for literacy instruction; optimization of instruction of mixed HL and FLL classes. Action research component included. Concurrently scheduled with course CM214. P/NP or letter grading.

188A. Introduction to Eurasia. (2) Lecture, 90 minutes. Experimental or temporary courses in East European and Eurasian studies, such as those taught by resident or visiting faculty members. May be repeated for credit in topic range, P/NP or letter grading.

188B. Languages of Eastern Europe and Eurasia. (2) Lecture or tutorial, 90 minutes. Program-sponsored experimental or temporary courses, such as those taught by resident or visiting faculty members, introducing lower-division students to Eastern European and Eurasian languages. May be repeated for credit with change in language or language level. P/NP or letter grading.

189A. Advanced Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to undergraduate lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

189HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to upper-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

191TB-191TC. Senior Capstone Thesis in Slavic Languages and Literatures. (2–2) Seminar, three hours. Course 191TA is enforced requisite to 191TB, which is enforced requisite to 191TC. Limited to senior departmental majors. Editing and completion of senior capstone thesis. Use of student target language for research required. Letter grading.

197. Individual Studies in Slavic Languages and Literatures. (2 to 4) Tutorial, to be arranged. Limited to juniors/seniors. Individual intensive study, with scheduled meetings to be arranged between faculty member and student. Assigned reading and tangible evidence of mastery of subject matter required. May be repeated for credit. Individual contract required. P/NP or letter grading.

198A. Honors Research in Slavic, East European, and Eurasian Languages and Literatures. (4) Tutorial, three hours. Limited to senior departmental honors program students. Development of research bibliography and survey of literature in field of Slavic, East European, and Eurasian languages and cultures. Topics chosen through consultation with faculty mentor. Students meet regularly with faculty advisor to report on progress and discuss readings. Individual contract required. Letter grading.

198B. Honors Research in Slavic, East European, and Eurasian Languages and Literatures. (4) Tutorial, three hours. Limited to senior departmental honors program students. Research and writing of thesis in Slavic, East European, and Eurasian languages and cultures under direct supervision of faculty mentor. Topics chosen in consultation with faculty mentor. Students meet regularly with faculty advisor to report on their research, discuss drafts of thesis chapters, and revise writing. Individual contract required. Letter grading.


199. Directed Research in Slavic Languages and Literatures. (2 to 8) Tutorial, to be arranged. Limited to juniors/seniors. Supervised individual research under guidance of faculty mentor. Culminating paper required. May be repeated for credit. Individual contract required. P/NP or letter grading.

Graduate Courses

200A. Literary Proseminar. (4) Seminar, three hours. Required for M.A. (literature). Designed to prepare incoming graduate students for scholarly work by introducing them to resources (departmental, intramural, and extramural), methodologies, and techniques for analysis of literary materials and cultural studies. Letter grading.


201. Introduction to Old Church Slavic. (4) Lecture, three hours. Required for MA (linguistics, literature). Introduction to Old Church Slavic (HL) and to heritage language (HL) instruction. Readings and discussion on such topics as definitions of HLs and HLLs; linguistic, demographic, sociolinguistic, and sociocultural profile of HLs, particularly HL groups most represented among UCLA students; institutional and instructor attitudes toward HLLs; impact of student motivation and expectations on HL curriculum and teaching approaches; similarities and differences between HLLs and foreign language learners (FLLs) regarding teaching methods and materials; diagnostic testing and needs analysis; use of oral/aural proficiency as springboard for literacy instruction; optimization of instruction of mixed HL and FL classes. Action research component included. Concurrently scheduled with course CM114. S/U or letter grading.

220. Introduction to Slavic Bibliography. (2) (Same as Information Studies M229C.) Introduction to Slavic and East European bibliography for the humanities and social sciences. Emphasis to be determined by requirements and background of enrolled students. Topics include relevant library terminology and concepts; survey of languages and transliteration systems; acquisition of Slavic and East European library materials; Slavic and East European scholarship in the West; relevant reference sources, archival research, and research methods; survey of online databases; compilation of bibliographies. S/U grading.


230A. Middle Ages through Baroque. (4) Classicism to Romanticism; 230C. Realism to Modernism.


281. Seminar: Slavic Linguistics. (4) Seminar, three hours. Selected topics in comparative and historical linguistics. May be repeated for credit with consent of instructor and graduate adviser.

375. Teaching Apprentice Practicum. (1 to 4) Seminar, to be arranged. Preparation: apprentice personnel employment as teaching assistant, associate, or fellow. Teaching apprenticeship under active guidance and supervision of regular faculty member responsible for curriculum and instruction at UCLA. May be repeated for credit.

495. Teaching Slavic Languages at College Level. (4) Seminar, 90 minutes; discussion, 90 minutes. Designed for graduate students. Theory and practice of language teaching. Discussion of contemporary language teaching methods and interrelationships with problems of pedagogical grammar. S/U grading.

566. Directed Individual Study or Research. (2 to 8) Tutorial, to be arranged. S/U grading.


Ukrainian

Lower-Division Courses

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminated by readings from current literature. P/NP grading.

89. Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to lower-division lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.
**Upper-Division Courses**

Lecture, five hours. Course 101A is recommended preparation for 101B, which is recommended preparation for 101C. Each course may be waived with consent of instructor. Basic courses in Ukrainian language. P/NP or letter grading.

102A-102B-102C. Advanced Ukrainian. (4–4–4)
Lecture, three hours. Recommended preparation: course 101C (may be waived with consent of instructor). Course 102A is recommended preparation for 102C. Concurrently scheduled with 102C. Each course may be waived with consent of instructor. Development of advanced listening, speaking, reading, and writing skills. P/NP or letter grading.

152. Ukrainian Literature. (4) Lecture, three hours. Lectures and readings in English. Survey of writers, literary trends, and issues in Ukrainian literature from the late 18th century to the present. Special attention to works of such major figures as Kotsyrevsky, Shevchenko, Franko, Ukrainka, and Tychyna.

C180. Variable Topics in Ukrainian Literature. (4) Seminar, three hours. Reading knowledge of Ukrainian recommended but not required. Topics include major writers, genres, or periods. May be repeated for credit with topic change. Concurrently scheduled with course C280. P/NP or letter grading.

187A. Advanced Tutorial Instruction in Ukrainian. (2) Tutorial, one hour; laboratory, one hour. Preparation: two years of Ukrainian and/or Ukrainian placement test. Tutorial and guided independent study of advanced Ukrainian: advanced conversation, composition, vocabulary development, and review of selected grammar topics. May be repeated for credit with topic change. Concurrently scheduled with course C280. P/NP or letter grading.

187B-187M. Advanced Tutorial Instruction in Ukrainian. (2 each) Tutorial, one hour; laboratory, one hour. Preparation: prior course in sequence or Ukrainian placement test. Tutorial and guided independent study of advanced Ukrainian: advanced conversation, composition, vocabulary development, and review of selected grammar topics. May be repeated for credit with topic change. P/NP or letter grading.

189. Advanced Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to undergraduate lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

189HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to upper-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

**Graduate Course**

C280. Variable Topics in Ukrainian Literature. (4) Seminar, three hours. Reading knowledge of Ukrainian recommended but not required. Topics include major writers, genres, or periods. May be repeated for credit with topic change. Concurrently scheduled with course C180. S/U or letter grading.

**SOCIAL SCIENCE**

**Interdepartmental Program College of Letters and Science**

**Social Science 310-825-3565**
Juliet A. Williams, PhD, Chair

**Faculty Committee**
Andrew Apter, PhD (Anthropology, History) Robin L.H. Derby, PhD (History) Tamar Kramer-Sadlik, PhD (Anthropology) PJ Lamberman, PhD (Communication) Davide Panagia, PhD (Political Science) Sarah Areva Y Stein, PhD (History) James W. Stigler, PhD (Anthropology, Psychology) Abel Valenzuela, Jr., PhD (Chicana and Chicano Studies, Urban Planning) Juliet A. Williams, PhD (Gender Studies) Min Zhou, PhD (Asian American Studies, Sociology)

**Scope and Objectives**

The Division of Social Sciences is home to leading researchers working to advance understanding of human societies around the globe. With over 250 faculty members housed in more than 15 departments and programs, the division encourages students to explore diverse perspectives and approaches to the study of social life.

The Social Science Interdepartmental Program offers the Master of Social Science (MSS) self-supporting degree. Drawing from current theories, methods, and professional practices from across social science disciplines, students develop proficiency with quantitative and qualitative research methods used to address complex social problems. The intensive one-year curriculum emphasizes creative problem-solving and collaborative research practices. Graduates will be prepared for academic and professional careers.

**Graduate Study**

Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Division website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

**Graduate Degree**

The Social Science Interdepartmental Program offers a self-supporting Master of Social Science (MSS) degree.
private software, to interpret results, and to make critical evaluations of quantitative social science research. Letter grading.

403. Quantitative Evidence and Analysis in Social Science. (Seminar, three hours; laboratory, one hour. Advanced training in data analysis and statistics, and training in research methods for evaluating research evidence and comparing results of studies that adopt varying research methodologies. Students gain experience working with large datasets, and with designing, testing, and validating statistical modeling techniques. Students are familiarized with datasets most relevant to their individual research interests. Students engage in peer-mentoring and individualized mentoring in selecting appropriate dataset for their major research paper (MRP). Letter grading.)

404. Research Design in Social Science. (Lecture, three hours. Introduction to main components of research projects, focusing on research questions, theoretical frameworks, and research design. Students design feasible research plan for individual project. Students identify research topic and specify research question; identify existing data for original analysis; compare theoretical frameworks for social scientific analysis of data; assess relevant evidence and literature; and explore approaches to data analysis. Students submit assignments, and complete research proposal. Letter grading.)

410. Engaged Social Science. (Seminar, three hours. Exploration of theory and practice of engaged social science, tracing its historical development from policy studies and related fields to more activist modalities of critique and intervention. Drawing on classic and contemporary studies in sociology, anthropology, political science, environmental studies, and social justice, to engage students in larger debates about politics of knowledge in relation to issues, such as poverty, racism, public health, refugees, gang culture, gender hierarchies, public education, and citizenship. Letter grading.)

419. Data Analysis. (Lecture, three hours. Workshop in which students develop research and analysis skills related to establishing and executing data analysis plan. Students engage in intensive peer-review process, working collaboratively in small groups. Students receive detailed feedback from instructor, teaching assistants, and faculty readers, and are expected to routinely revise their work. Students refine their presentation skills and prepare three- to five-minute presentation. Letter grading.)

420. Research Design and Analysis. (Seminar, three hours. Guided completion of major research paper (MRP). Students receive detailed feedback from instructor, revise literature review, finalize analysis, tighten rhetoric, and improve organization of manuscript to transform it into final research paper. Letter grading.)

430. Community-Based Research. (Lecture, three hours; fieldwork, two hours. Study of principles, ethics, and methods of community-based research (CBR), and place and purpose of scholarly inquiry. Working in teams, students conduct small-scale research projects in collaboration with local community organizations. Teams work closely with instructors and organization agents on all aspects of research design, execution, and data analysis. Students apply quantitative and qualitative research methods skills acquired in courses 401 and 402 to research projects. Attendance at research site meetings, team meetings, and weekly on-campus class meetings required. Each team presents final work and submits final research report to community partner by end of quarter. Letter grading.)

M460A. Voting Rights Policy and Law I. (2) (Same as Public Policy M260B) Clinic, three hours. Required course for M460B. Collaborative course taught from perspective of social science research, civil rights, and voting rights. Exposes students to voting rights act theory, case law, history, research, and implementation. Faculty guest experts from across campus provide their perspective on how to study, research, and document various aspects related to voting rights. Includes factors such as history of discrimination against minority group in areas of employment, education, housing, and political representation. Students learn and implement in-depth study of methodology and statistical approach to document presence or absence of vote dilution or vote denial in different jurisdictions. Discussion of history and legal principles of federal Voting Rights Act and California Voting Rights Act led by leading voting rights attorney. May be repeated for credit. S/U or letter grading.

M460B. Voting Rights Policy and Law II. (2) (Same as Public Policy M260B) Clinic, three hours. Required course for M460A. Collaborative course taught from perspective of social science research, civil rights, and voting rights. Exposes students to voting rights act theory, case law, history, research, and implementation. Faculty guest experts from across campus provide their perspective on how to study, research, and document various aspects related to voting rights. Includes factors such as history of discrimination against minority group in areas of employment, education, housing, and political representation. Focus on practical aspects of voting rights law. Students learn in greater detail legal theory relevant to bringing successful voting rights challenge, and how to assemble and present social science evidence. Students read case law on federal and Voting Rights Act decisions, review accompanying expert reports, and work in teams on aspects of lawsuit. S/U or letter grading.

M460C. Voting Rights Policy and Law III. (2) (Same as Public Policy M260C) Clinic, three hours. Required courses for M460B, M460B. Collaborative course taught from perspective of social science research, civil rights, and voting rights. Exposes students to voting rights act theory, case law, history, research, and implementation. Faculty guest experts from across campus provide their perspective on how to study, research, and document various aspects related to voting rights. Includes factors such as history of discrimination against minority group in areas of employment, education, housing, and political representation. Students continue work on all aspects of voting rights cases including preparation of expert research reports, legal argumentation and filings, depositions, and other case-related matters. S/U or letter grading.

SOCIAL THOUGHT

Interdisciplinary Minor
College of Letters and Science
A316 Murphy Hall
Box 951430
Los Angeles, CA 90095-1430

Social Thought
310-267-5430

Minor Adviser
Jeffrey J. Guhin, PhD, Chair

Faculty Committee
Cécile Guédon, PhD (French and Francophone Studies)
Jeffrey J. Guhin, PhD (Sociology)
Barbara Herman, MA, PhD (Law, Philosophy)
Jeffrey Prager, PhD (Sociology)
Stephanie B. Santana, PhD (Comparative Literature)

Scope and Objectives

The Social Thought minor helps students to think better: to think more deeply and more critically, drawing on the intellectual resources of major thinkers from around the world. Emphasizing social and political thought from the 17th century to today, students read widely to develop an original argument about social life, culminating in a thesis project that is an original contribution to scholarship. The minor builds on lower-division introductory exposure to the history of modern ideas as embodied in a number of key texts by significant thinkers such as Darwin, Descartes, de Beauvoir, Du Bois, Freud, Hobbes, Locke, Marx, Mill, Nietzsche, Rousseau, Said, Smith, Weber, and Wollstonecraft. Building upon these foundations, students are encouraged to read widely and make connections to intellectuals who are not traditionally considered part of the canon of North Atlantic thought, especially thinkers from the Global South, indigenous communities, and historically marginalized groups.

Insisting that the best way to develop your thoughts is to write about them, the minor culminates in a two-semester capstone project, a thesis of at least 5,000 words, under the direction of a UCLA faculty mentor. Students from all majors are encouraged to join the Social Thought minor. The Social Thought minor is about asking big questions and finding answers for big ideas.

Undergraduate Study

Social Thought Minor

The Social Thought minor is limited to students who formally apply and are admitted. To apply, students must submit an application, a personal statement supporting their interest in pursuing the minor, a letter of recommendation from a faculty mentor, and a transcript to the College Academic Counseling Office, A316 Murphy Hall.

To enter the minor, students must have an overall grade-point average of 2.0 or better and apply for admission only after successfully completing the following lower-division requirements: Clusters 21A and 21B, or two courses from German 56, Honors Collegium 20, 21W, 55, 57, 83W, Philosophy 6, Political Science 10, Sociology 10.

Required Upper-Division Courses (16 to 20 units):

Required Research Colloquia and Senior Thesis (12 units): Students must also complete Social Thought 190A and 190A in one term and courses 190B and 190B in the following term. A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor.

Each minor course must be taken for a letter grade, and students must have an overall grade-point average of 2.0 or better in the minor. Successful completion of the minor is indicated on the transcript and diploma.
Social Thought

Lower-Division Courses

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

89. Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to lower-division lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be repeated for credit, only once for credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

89HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to lower-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

99. Student Research Program. (1 to 2) Tutorial (supervised research or other scholarly work), three hours per week per unit. Entry-level research for lower-division students under guidance of faculty mentor. Students must be in good academic standing and enrolled in minimum of 12 units (excluding this course). Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP or letter grading.

Upper-Division Courses

189. Advanced Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to undergraduate lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. Letter grading.

189HC. Honors Contracts. (1) Tutorial. Limited to students in College Honors Program. Designed as adjunct to upper-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

190A–190B. Research Colloquia in Social Thought I, II. (2–4) Seminar, two hours. Corequisite for course 190A; course 190A; for 190B: course 190B. Limited to juniors/seniors. Required of students in Social Thought minor. Designed to bring together students undertaking supervised senior thesis work in seminar setting with one or more faculty members to discuss their work or related work in Social Thought minor. Led by one supervising faculty member. Course 190A may be repeated for credit. P/NP grading.

190A–190B. Directed Research or Senior Thesis in Social Thought I, II. (4–4) Tutorial, to be arranged. Corequisite for course 190A: course 190A; for 190B: course 190B. Limited to juniors/seniors. Required of students in Social Thought minor. Supervised individual research under guidance of faculty mentor. Culminating paper or project required. May be repeated for credit. Individual contract required. Letter grading.

SOCIAL WELFARE

Meyer and Renee Luskin School of Public Affairs

3357 Public Affairs Building
Box 951656
Los Angeles, CA 90095-1656

Social Welfare
310-825-2892

Laura S. Abrams, PhD, Chair and Director, MSW Program
Ian W. Holloway, MSW, MPH, PhD, Chair, Doctoral Program
Gerardo P. Lavíña, LCSW, MSW, Director, Field Education

Professors
Laura S. Abrams, PhD
Ron A. Astor, MSW, PhD (Marjorie Crump Professor of Social Welfare)
David Cohen, PhD
Todd M. Franke, PhD
Mark S. Kaplan, DrPH
Ananya Roy, PhD (Meyer and Renee Luskin Professor of Inequality and Democracy)
Fernando M. Torres-Gil, PhD

Professors Emeriti
Rosina M. Becerra, PhD
A.E. Benjamin, PhD
Diane S. de Anda, PhD
Aurora P. Jackson, PhD
Stuart A. Kirk, DSW (Marjorie Crump Professor Emeritus of Social Welfare)

James E. Lubben, MSW, MPH, DSW
Alise Moon, PhD
Alex J. Norman, DSW
Jack Rothman, PhD
Robert F. Schilling, PhD
Leonard Schneiderman, PhD

Associate Professors
Ian W. Holloway, MSW, MPH, PhD
Alfreda P. Iglehart, PhD
Lené F. Levy-Storms, MPH, PhD
Carlos E. Santos, PhD
Laura Wray-Lake, PhD

Assistant Professors
Leyla Karimi, PhD
Brian T.H. Keum, MA, PhD
Judith L. Perrigo, LCSW, PhD
Amy E. Ritterbusch, PhD
Cindy C. Sangalang, MSW, PhD
Latoya A. Small, PhD
Lee Ann S. Wang, PhD

Adjunct Professors
Helmut K. Anheier, PhD
Jorja J. Leap, PhD

Adjunct Assistant Professors
Khush E. Cooper, MSW, PhD
Ayako Miyashita Ochoa, JD

Fieldwork Consultants
Laura Alongi, LCSW
Larthia R. Dunham, MSW
Woo K. (Toby) Hur, MSW
Tranishia L. James, LCSW
Hector R. Palencia, LCSW
Michelle Talley, MSW

Scope and Objectives

The primary objectives of the Department of Social Welfare graduate program are to prepare leaders for the profession of social work and to develop the empirical base for all facets of practice. In response to changing demographic trends and the emergence of new social problems, the department provides leadership in the areas of policy, practice, and research and in the development of an innovative curriculum for training students and professionals to meet the service needs of a multicultural clientele.

The educational program is based on the premise that all students need to acquire a common body of knowledge and basic skills, and a common understanding of the philosophy and values of the profession. These then form a sound foundation for the development of more specialized knowledge and skills along the lines of each student’s interests and the needs of the field.

Students are encouraged to take advantage of the resources within UCLA by selecting elective courses in related disciplines. In addition, as a department within the Luskin School of Public Affairs, the program affords students instructional opportunities in the other affiliated departments—Public Policy and Urban Planning.

Beyond national opportunities in the profession of social work, there is increasing demand for qualified and experienced social workers to serve in the international field, where many social service programs are conducted under the auspices of the United Nations, the U.S. government, and national sectarian organizations. Graduates of the doctoral program generally secure appointments at major universities or research centers.

The challenge to the department, the profession, and those who join us as students is to prepare to forge the paths, build the bridges, and shape the future to ensure that all individuals, families, and communities enjoy better education, better health care, better job training, and better economic futures.

Graduate Study

Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Division website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Graduate Degrees

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

98. Honors Seminars. (1) Seminar, three hours. Limited to 20 students as an adjunct to lower-division lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

99. Student Research Program. (1 to 2) Tutorial (supervised research or other scholarly work), three hours per week per unit. Entry-level research for lower-division students under guidance of faculty mentor. Students must be in good academic standing and enrolled in minimum of 12 units (excluding this course). Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP or grading.

Upper-Division Courses

100A. Introduction to Social Welfare: Policies and Programs. (4) Lecture, four hours. Origin and development of social welfare programs; policies guiding them, with emphasis on analysis of policy developments/issues related to provision of social welfare services. Study of historical and current responses to provision to major social problems. P/NP or letter grading.

100B. Social Welfare Policy: Overview. (4) Lecture, four hours. Required course 100A. Review of existing policy regarding major social issues in field of social welfare. Exploration of the interplay between need and capacity of social agencies to address need. Exploration of differential impact of policy on various populations. P/NP or letter grading.

101. Social Welfare in Multicultural Society. (4) Lecture, four hours. Social policy viewed from perspective of various cultural groups. Students to become aware of their own cultural perspective and learn to recognize similarities and differences in values, perspectives, and beliefs across cultural groups. P/NP or letter grading.


103. Introduction to Direct Practice with Individuals, Families, and Groups. (4) Lecture, four hours. Required course 100A, 100B, 101. Description and demonstration of basic skills employed in direct social work practice via casework process. Students practice these skills in written, role-play, small group, and video or audio exercises. P/NP or letter grading.

104C. Diversity in Aging: Roles of Gender and Ethnicity. (4) Same as Chicana and Chicano Studies M106B, Gender Studies M104C, Gerontology M104C, and Public Affairs M131.) Lecture, four hours. Exploration of complexity of variables related to diversity of aging population and variability in aging process. Examination of gender and ethnicity within context of both physical and mental health. In multidisciplinary perspective utilizing faculty from variety of fields to address issues of diversity. Letter grading.

104D. Public Policy and Aging. (4) Same as Gerontology M104D.) Lecture, four hours. Examination of theoretical, ethical, and practical aspects of policy planning with application to aging policy. Analysis of decision-making processes that affect aging policy. Description of current social policy issues aging policy. Exploration of current policy issues affecting elderly. P/NP or letter grading.

M104E. Social Aspects of Aging. (4) Same as Gerontology M104E.) Lecture, four hours. Topics include theories of aging, economic factors, changing roles, social relationships, and social policy implications. Weekly seminars organized around key aspect of social gerontology. P/NP or letter grading.

105. Social Welfare Policy in Modern America: Historical Perspectives. (4) Seminar, three hours; outside study, nine hours. Historical overview of American social policy dealing with three core societal problems: poverty, sickness, and joblessness. Programs developed over time, but these programs have typically been public insurance programs or cash transfers such as unemployment insurance, welfare, and Social Security. Collectively these programs are known as “the welfare state”; examination of origins of the U.S. welfare state, its development over time, and features that make it distinctive as compared to welfare states in other nations. Letter grading.

106. Research Seminar and Field Observation: Social Welfare. (4) Seminar, three hours; discussion, one hour; outside study, eight hours. Didactic component with focus on development of basic skills in the areas of research. Students select one field of observation experience (modules in a number of field settings. P/NP or letter grading.

107. Field Practicum: Social Welfare. (4) Lecture, four hours; discussion, one hour; outside study, eight hours. Required course 106. In field practicum students are placed in agency where they participate in observation of agency functions with participation in specific agency tasks and roles under instructional supervision of an agency mentor and a UCLA faculty member. P/NP or letter grading.


110. Inequality and Democracy: Analysis and Praxis of Public Problems. (4) (Same as Urban Planning M110.) Lecture, three hours; discussion, one hour. Analyzes social and political problems, taking up case of persistent inequality in liberal democracies; coverage of key frameworks and methodologies for understanding and analyzing poverty and inequality and examination of forms of action, from role of government to social movements, that seek to intervene in such problems. Study of problems, programs, policies, politics, and policies in globally interconnected, transnational world, while recognizing divide between global north and global south. Letter grading.

M110. Inequality and Democracy: Analysis and Praxis of Public Problems. (4) (Same as Urban Planning M110.) Lecture, three hours; discussion, one hour. Analyzes social and political problems, taking up case of persistent inequality in liberal democracies; coverage of key frameworks and methodologies for understanding and analyzing poverty and inequality and examination of forms of action, from role of government to social movements, that seek to intervene in such problems. Study of problems, programs, policies, politics, and policies in globally interconnected, transnational world, while recognizing divide between global north and global south. Letter grading.

130A-130B. Community Research and Services Seminars. (4-6) Seminar, three hours; seminar, one hour. Required course 130A. Students to be assigned to two-term tutoring/mentoring site where they apply tutoring techniques as they assist middle school children living in impoverished areas of Los Angeles County. In Progress (130A) and P/NP or letter grading.

131. Poverty, Poor, and Welfare Policy. (4) Seminar, three hours. Limited to juniors/seniors. Current research and policy issues concerning poverty in the U.S., with specific emphasis on single-parent households. Overview of measurements and characteristics of poor people, alternative theoretical explanations of poverty; historical overview of major social welfare policies to combat poverty, particularly Aid to Families with Dependent Children (AFDC) and Personal Responsibility and Work Opportunity Reconciliation Act (PROWA); and critical appraisal of recently enacted state welfare reform policies. Relationship between research knowledge about poverty and current policies, and effects of gender, ethnic patterns of poverty and policy responses. P/NP or letter grading.

132. Community Analysis and Community Needs. (4) Lecture, three hours. Emphasizes understanding and depicting demographic composition of communities and for determining community needs. Use of systems theory as organizing framework. Community-level interventions are affected by community’s social ecology, culture, economic system, political system, ethnic composition, and class structure. Agencies continue to seek to define community needs and develop interventions to respond to those needs. Knowledge of community infrastructure necessary for ascertaining its strengths and resources that can be mobilized for addressing and responding to various needs, issues, and concerns. Social service agencies and communities can work together in partnership to enhance quality of life. P/NP or letter grading.

M140. Introduction to Study of Aging. (4) Same as Psychology M140.) Lecture, four hours. Required for seniors/juniors. Perspectives on major features of human aging—biological, social, psychological, and humanistic. Introduction to information on range of influences on aging to prepare students for subsequent specialization. P/NP or letter grading.

M142SL. Intergenerational Communication across Lifespan. (Same as Gerontology M142SL.) Lecture, three hours; fieldwork, one hour. Limited to juniors/seniors. What do you talk to your grandparents about? Does your family talk well to one another as group? How do you communicate well with boss who is 30 years older than you? Increasingly the ways we interact with one another, and their interactions have significance throughout their lives. Introduction to psychoanalytical, intercultural, and societal issues related to intergenerational communication across lifespan. Letter grading.


162. Health Policy and Services. (4) Seminar, three hours. Limited to juniors/seniors. Contemporary issues in healthcare financing and delivery and historical perspectives on these issues. Roles of government in healthcare and ways controversy about this role continues to shape and constrain public policy in health. Major public programs, notably Medicare and Medicaid, and their relationship to issues of access and cost for diverse vulnerable populations. Various public and private approaches to healthcare reform and ways of thinking about their predicted impact, cost, and political feasibility. Issues in care of persons with chronic illness and debate about public and private approaches to long-term care reform. Social work roles in healthcare policy and practice. P/NP or letter grading.

163. Prevention of Risky Substance Use and Related Problems. (4) Lecture, four hours. Limited to juniors/seniors. Prevention of substance use and related harms from legal and illegal substances is major con-
164. HIV Prevention in U.S. and Developing World  
(4) Lecture, three hours. Limited to juniors/senior. Examination of various approaches to HIV prevention, drawing on diverse paradigms from public health and theories of behavior change from fields of psychology, sociology, and communications. Sexual behavior and injection drug use, existing and promising techniques to reduce HIV transmission, fiscal, cultural, ethical, and moral dilemmas in allocation of prevention resources. P/NP or letter grading.

M165. Disability Policy and Services in Contemporary America  
(4) Same as Disability Studies M130 and Gerontology M165. Lecture, three hours. Limited to juniors/seniors. Growing numbers of people of all ages with disabilities are leading active and productive lives in American communities. Many others are struggling to lead lives of worth and dignity. How do people with disabilities live in America today? What policies and social services help people with disabilities earn a living, support their families, and remain in their own communities? What are the societal, economic, and political factors that affect access to opportunities and quality of life? How do the humanities and social sciences contribute to understanding these issues and to thinking about the future? P/NP or letter grading.

188A. Individual Studies for USIE Facilitators  
(1) Tutorial, to be arranged. Enforced corequisite: Honors Collegium 101E. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor to finalize course syllabus. Individual contract with faculty mentor required. May not be repeated. Letter grading.

188B. Individual Studies for USIE Facilitators  
(1) Tutorial, to be arranged. Enforced corequisite: Honors Collegium 101E. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor to finalize course syllabus. Individual contract with faculty mentor required. May not be repeated. Letter grading.

188C. Individual Studies for USIE Facilitators  
(2) Tutorial, to be arranged. Enforced corequisite: course 188A. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor to finalize course syllabus. Individual contract with faculty mentor required. May not be repeated. Letter grading.

189. Advanced Honors Seminars  
(1) Seminar, three hours. Limited to 20 students. Designated as adjunct to upper-division lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

(4) Seminar, three hours; outside study, nine hours. Examination in depth of particular subfield of social welfare research (e.g., child welfare, children and youth, nonprofit, health, mental health). Limits of investigation set by individual instructor. May be repeated for credit with topic change. Letter grading.

195. Community Internships in Social Welfare  
(1) Seminar, one hour; outside study, three hours. Corequisite: course 195. Not open to freshmen. Introduction to topics relevant to psychosocial determinants of children’s health and development with emphasis on families, children and families, with opportunity to gain breadth and depth of knowledge in seminar setting. May be repeated for credit. P/NP or letter grading.

196. Community Internships in Social Welfare  
(2) Tutorial, four hours. Corequisite: course 196. Not open to freshmen. Introductory course in community-based child health and advocacy. Students learn about community resources for children and families through service learning experiences with pediatric patients and families in UCLA pediatric units. Students meet on regular basis with instructor and provide periodic reports of their experience. May be repeated for credit. Individual contract with supervising faculty member required. Letter grading.

199. Directed Research in Social Welfare  
(2 or 4) Tutorial, two hours. Limited to juniors/seniors. Supervised individual research or investigation under guidance of faculty member. May be repeated for credit. Individual contract required. P/NP or letter grading.

Graduate Courses

202A-202B. Dynamics of Human Behavior. (4-4) Lecture, two hours; outside study, nine hours. Requisites: courses 201A, 201B. Deviation from cognitive, social, physical, emotional, and psychological development in human beings. Through private and group sessions, students explore human development and behavior in a variety of settings relevant to professional practice. P/NP or letter grading. May be repeated for credit. Individual contract required. P/NP or letter grading.

203A-203B-203C. Integrative Seminars. (4-4-4) Seminar, two and one half hours. Integrative courses that bring together theory and practice of social work in a variety of topics and areas relevant to professional practice. Includes identification of areas of need and population characteristics of people who seek assistance and appropriate intervention strategies. May be repeated for further examination. S/U or letter grading.

203F-M203G-M203H. Child Abuse and Neglect. (2-2-2) Same as Community Health Sciences M203F-M203G-M203H. Lecture, two and one half hours. Examination in depth of physical, emotional, and social areas of human functioning as they pertain to child abuse and neglect. May be repeated for credit. Individual contract required. P/NP or letter grading. Letter grading.

204A-204B-204C. Framework for all Social Work Practice—Part One. (4) Lecture, two and one half hours. Introduction to terminology and scope of systems framework that underlies social work practice. Students learn how to identify and assess small- and large-scale forces that influence problems presented by clients. Letter grading.


211A. Human Behavior in Social Environment: Theoretical Perspectives in Social Work and Social Welfare II. (4) Lecture, two and one half hours. Introduction to terminology and scope of systems framework that underlies social work practice. Students learn how to identify and assess small- and large-scale forces that influence problems presented by clients. Letter grading.

212. Human Behavior in Social Environment: Critical Self-Awareness and Intergroup Dialogue. (2) Lecture, 75 minutes. Introduction to critical self-awareness and intergroup dialogue to explore and appreciate the diversity and complexity of the world we live in. Students learn about differences and similarities among different groups and how societal values influence race, gender, sexuality, religion, ability, and age. Letter grading.

213A. Social Welfare Research Methods. (4) Lecture, two and one half hours. Introduction to various research methodologies, including experimental and quasi-experimental designs, survey research methods, qualitative methods, and single subject and group-based research designs. Exploration of ethical issues pertaining to social science research. Students learn and practice formulating research questions, research design, and hypothesis and learn how to critically review theory and research. Measurement, sampling procedures, and basic descriptive statistics. Letter grading.

213B. Applied Statistics in Social Welfare. (4) Lecture, two and one half hours; discussion, one hour. Course for MSW students. Introduction to research designs, data collection methods taught in course 212A, and designed to help students develop basic understanding of descriptive and inferential statistical approaches. Introduction to statistical reasoning with emphasis on how statistics can help us understand world. Topics include numerical and graphical summaries of data, data acquisition and experimental design, probability, hypothesis testing, confidence intervals, correlation, and regression. Letter grading.
241A. Foundations of Social Welfare Policy. (4) Lecture, two and one half hours. Overview of key areas of social welfare policy. Roots of American social welfare policy and how they have given rise to today’s social policy structure. Path of social welfare policy development. Expiration of professional social work and how it has paralleled major social policy issues from early colonial settlements to present day. Specific events and important individuals that have influenced public policy and vulnerable populations, such as racial and ethnic minorities, women, children, the poor, and other diverse populations. Examination of role of research in informing social welfare policy. Letter grading.

241B. Leadership for Social Change. (4) Lecture, two and one half hours. Overview and understanding of leadership and social policy elements for effective social change in dynamic and diverse society. Builds on foundations of social welfare history and policy development. Examination of elements of policy advocacy and competencies for effective social work leadership in organizational and community settings and integration of research and theory in addressing and resolving complex social problems. Letter grading.

M215. Global Public Affairs: Governing in Interconnected World. (4) (Same as Public Policy M228B and Urban Planning M228B) Three hour course. Social work, nine hours. Conceptually, focus on interplay between three major institutional complexes of modern, globalizing societies and organizations that operate within the dynamic constraints of the state, market, and civil society. Student moves between abstract theory and concrete examples, offers sense of where these institutions and organizations have come from, and helps chart their present trajectories. From perspective of governance, assessment of roles and configurations of institutions and organizations to address today’s challenges. S/U or letter grading.

223. Seminar: Social Work Profession. (2) Seminar, two hours. Survey of social work roles and responsibilities in contemporary society; relationships with other professions; probable future trends in professionalization; social work ethics, professional organizations, certification, licensing; professional responsibility for continued self-criticism and improvement of profession. S/U grading.

229A. Craft of Social Welfare Scholarship I. (4) Lecture, three hours; outside study, nine hours. Limited to PhD students. Students examine one problem for study and its history, current state of knowledge about why problem exists, and what might be done about it. Survey of several problems and alternative ways in which personal social research might be conducted. Students are expected to understand how scholars use theory and empirical evidence to advance what is known, what is yet unknown, where there are important gaps in understanding, and what might be done to solve them. Letter grading.

229B. Craft of Social Welfare Scholarship II. (4) Lecture, three hours; outside study, nine hours. Enforced requisite: course 229A. Limited to PhD students. Continued narrowing of student focus on one social work research problem, moving from understanding of evolution and context of general problem to more detailed and intensive review of research literature on specific research area to develop independent understanding of existing knowledge on topic and begin to identify one or more critical gaps in knowledge to explore. Discussion of different methods of summarizing research literatures, identifying seminal works, interpreting contradictory findings. Regular meetings to discuss ongoing work and to encourage students to review their work with their faculty advisors and other students with expertise in their problem area. Letter grading.

229C. Craft of Social Welfare Scholarship III. (2) Lecture, 90 minutes; outside study, four and one half hours. Enforced requisite: course 229B. Limited to PhD students. Focus on craft of scholarly writing for publication to help students develop effective narrative frame for presentation, make choices about extent of detail and shape of presentation, and achieve cogent presentation and conclusion. Considers elements of effective professional writing. Letter grading.

231A. Family Systems Interventions. (4) Lecture, two and one half hours. Application of theories and techniques to develop framework for couples and family social work practice. Examples of social work practice with couples and families may include developing relationship skills for those struggling with mental illness; supportive interventions for family members of impaired or frail elderly; parent education and skill development for welfare recipients; individual, couples, and family treatment of victims of abuse, bereavement support groups, or interventions helping families to recover from experiences with substance abuse, domestic violence, sexual difficulties, and more. S/U or letter grading.

231B. Advanced Social Welfare Practice. (4) Lecture, two and one half hours; outside study, nine hours. Corequisite: required social work practicum. Advanced-level, critical analysis of theories, concepts, and principles underlying social casework practice. Specific attention to deviation and stress as conditions affecting functioning of individuals and groups and to diagnostic knowledge and competence required in rehabilitation and prevention. S/U or letter grading.

231E. Advanced Social Welfare Practice: School Social Work. (4) Lecture, two and one half hours; outside study, nine hours. Corequisite: required social work practicum. Advanced-level, critical analysis of theories, concepts, and principles underlying social casework practice. Specific attention to deviation and stress as conditions affecting functioning of individuals and groups and to diagnostic knowledge and competence required in rehabilitation and prevention. S/U or letter grading.

231F. Advanced Social Welfare Practice: Cognitive-Behavioral Theories and Methods. (4) Lecture, two and one half hours; outside study, nine hours. Corequisite: required social work practicum. Advanced-level, critical analysis of key contributors, essential concepts, trends, and uses associated with cognitive-behavioral therapy. Corequisite: required social work practicum.

231G. Advanced Social Welfare Practice: Substance Abuse Intervention. (4) Lecture, two and one half hours; outside study, nine hours. Corequisite: required social work practicum. Advanced-level, critical analysis of major intervention approaches—individual, family, group, and environmental—to treating substance abuse and dependency. Specific attention to skills and self-awareness to integrate biological, psychological, and social factors in assessing and intervening with substance-using clients and target populations. S/U or letter grading.

231I. Advanced Social Welfare Practice: Child Welfare. (4) Lecture, two and one half hours; outside study, nine hours. Corequisite: required social work practicum. Advanced-level, critical analysis of major intervention approaches—individual, family, group, and environmental—to treating substance abuse and dependency. Specific attention to skills and self-awareness to integrate biological, psychological, and social factors in assessing and intervening with substance-using clients and target populations. S/U or letter grading.

231J. Advanced Social Welfare Practice: Child Welfare. (4) Lecture, two and one half hours; outside study, nine hours. Corequisite: required social work practicum. Advanced-level, critical analysis of major intervention approaches—individual, family, group, and environmental—to treating substance abuse and dependency. Specific attention to skills and self-awareness to integrate biological, psychological, and social factors in assessing and intervening with substance-using clients and target populations. S/U or letter grading.

231K. Advanced Social Welfare Practice: Mental Health. (4) Lecture, two and one half hours; outside study, nine hours. Corequisite: required social work practicum. Designed to provide students with grounding in social work practice with adults in mental health settings. Emphasis on evidence-based approaches to providing services to prevent and persistently mentally ill. Exploration of strengths-based recovery-oriented approaches that are consistent with knowledge and values of social work practice. Exposure to range of interventions applicable to most common mental health problems and barriers to service delivery for this vulnerable population, such as stigma, criminalization, cultural bias, and gaps in knowledge. S/U or letter grading.

231M. Advanced Social Welfare Practice: Health. Lecture, two and one half hours; outside study, nine hours. Corequisite: required social work practicum. Advanced-level, critical analysis of various roles, professional competencies, and strategies for working with healthcare teams. From case-based approach, examination of variety of clinical challenges, assessment techniques for use in multiple settings, and interventions to implement with individuals, families, groups, and multidisciplinary healthcare teams. Evaluation of policy implications that impact social work practice in health settings. S/U or letter grading.

231N. Early Childhood Mental Health. (4) Lecture, two and one half hours; outside study, nine hours. Evidence-based practice training with children and their caregivers in agency-based settings. Integration of social work and mental health practice. Letter grading.

231P. Advanced Social Welfare Practice: Gerontology. (4) Lecture, two and one half hours; outside study, nine hours. Corequisite: required social work practicum. Advanced-level, critical analysis of theoretical and practical models related directly to practice with diverse population of older adults. Presentation of comprehensive tools for multidimensional geriatric assessment. How to engage in collaborative treatment planning and maximize a range of late-life options and address impediments to intervention process. Theoretical underpinnings and most effective practice models to enable students to serve needs of older clients and their families; how they adjust to life issues such as health and mental health problems most prevalent for older adults. Client populations range from well elderly to physically frail and/or demented from diverse backgrounds. S/U or letter grading.

231Q. Advanced Social Welfare Practice: Psychopharmacology. (4) Lecture, two and one half hours; outside study, nine hours. Corequisite: required social work practicum. Advanced-level, critical analysis of theories, concepts, and principles underlying psychopharmacology across health and mental health settings. Focus on early start medication for this vulnerable population, such as grief counseling, bereavement support groups, or interventions helping to plan social work practice and direct developmental study of interventions for family members of impaired or frail elderly; parent education and skill development for welfare recipients; individual, couples, and family treatment of victims of abuse, bereavement support groups, or interventions helping families to recover from experiences with substance abuse, domestic violence, sexual difficulties, and more. S/U or letter grading.

231S. Advanced Social Welfare Practice: Trauma. (4) Lecture, two and one half hours; outside study, nine hours. Corequisite: required social work practicum. Advanced-level, critical analysis of theories, concepts, and principles underlying social casework practice. Specific attention to deviation and stress as conditions affecting functioning of individuals and groups and to diagnostic knowledge and competence required in rehabilitation and prevention. S/U or letter grading.

231T. Child and Adolescent Trauma. (4) Lecture, two and one half hours. Introduction to common concepts (general theory and foundational knowledge), working with mental health problems and barriers to service delivery for this vulnerable population, such as stigma, criminalization, cultural bias, and gaps in knowledge. S/U or letter grading.

231U. Advanced Social Welfare Practice: Health. Lecture, two and one half hours; outside study, nine hours. Corequisite: required social work practicum. Advanced-level, critical analysis of various roles, professional competencies, and strategies for working with healthcare teams. From case-based approach, examination of variety of clinical challenges, assessment techniques for use in multiple settings, and interventions to implement with individuals, families, groups, and multidisciplinary healthcare teams. Evaluation of policy implications that impact social work practice in health settings. S/U or letter grading.
functioning of primary care-giving environments and assesses capacity of community to facilitate restorative processes. Letter grading.

232. Prevention and Promotion in Health and Mental Health. (4) Lecture, two and one half hours. Core course for Health and Mental Health Across the Lifespan area of concentration. Introduction to social determinants/pathways of health, one of over-arching integrative and evidence-based frameworks accounting for upstream influences on health and mental health. Focus on development of different methods of social work practice. This approach and illustration of them with examples from efforts to prevent health and mental health problems and promote health in communities. How to use geographic information systems (GIS) to inform community practice. Conveys seminal knowledge of key settings and enables students with building blocks for independent scholar- ship. (Formerly numbered 249B.) Survey design, sampling strategies and external and internal, and statistical conclusion validity, and inferring causality. Letter grading.

245A. Advanced Social Welfare Practice: Community Mapping. (4) Lecture, two and one half hours; outside study, nine hours. Corequisite: required social work practicum. Designed to familiarize students with use of geographic information systems. Review of previous research on social determinants and discussion of methods of social work practice. Use of GIS to inform community practice. S/U or letter grading.


245C. Research Capstone III: Data Gathering, Analysis, and Interpretation. (2) Corequisite: required social work practicum. Students develop range of research skills and understand variations across research tasks such as conducting literature review, writing, and preparing for a conference. Students work closely with their faculty mentor and other graduate students. Introduction to research process and skills necessary for conducting research in social services. In Progress (281A, 281B) and S/U or letter grading.

245B. Research Capstone II: Data Gathering, Analyses, and Interpretation. (2) (Formerly numbered 249B.) Letter grading. Limited to graduate students. Exposes first-year PhD students to professional level research skills and understanding of research designs and evaluation methods as well as data gathering and analysis. Letter grading.

245A. Research Capstone I: Project Development. (4) Lecture, two and one half hours. Formulation of research problems, questions, and hypotheses that guide the critical review of the relevant literature and study of the existing literature. Letter grading.


258. Critical Problems in Social Welfare. (2) Discussion, two hours. Designed for Ph.D. students. Current research in field of social welfare. Specific topic varies depending on research and educational interests and needs of class. May be repeated for credit. S/U grading.

259. Variable Topics in Statistics in Social Sciences. (4) Lecture, two hours. Limited to graduate students. Topics vary depending on research and educational interests and needs. May be repeated for credit. S/U grading.
**SOCIETY AND GENETICS, INSTITUTE FOR**

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- Martie G. Haselton, PhD
- Christopher M. Kelty, PhD
- Russell Korobkin, JD
- Hannah L. Landecker, PhD
- Rachel C. Lee, PhD
- Megan M. McEvoy, PhD
- Christina G.S. Palmer, PhD, in Residence
- Janet S. Sinzheimer, PhD
- Stefan Timmermans, PhD

**Professors Emeriti**

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- Matthew Norton Wise, PhD

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- Nanibaa’ A. Garrison, PhD
- Terence D. Keel, PhD
- Jessica W. Lynch Alfaro, PhD
- Aaron L. Panofsky, PhD

**Assistant Professors**

- Shane C. Campbell-Staton, PhD
- Nicholas E. Shapiro, PhD
- Bharat J. Venkat, PhD

**Adjunct Assistant Professor**

- Michelle A. Rensel, PhD

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**Scope and Objectives**

The Human Biology and Society majors provide a rigorous interdisciplinary education in current issues at the intersection of human biology, genetics, and society where bridging the institutional divide between the life sciences and human sciences (humanities and social sciences) is necessary.

The teaching strategy emphasizes the value of synthetic, integrative thinking. Learning can best be organized synthetically around the sorts of knowledge and skills required to investigate and address such problems rather than by building up from the stepwise sequences of traditional disciplines. Preparation for the majors is centered on three areas of study that together prepare students to solve problems at the intersection of biology and society: genetics and gene expression; human evolutionary biology; and society, diversity, and identity. These areas provide an important integrative space where different ways of knowing in the human and life sciences are explored, interrelated, and applied. Core and capstone courses emphasize problem-based learning about pressing issues that inextricably link society, culture, and biology, such as medical privacy rights, gene patents, regulation of stem cell research, and questions of race, gender, and identity.

Programmatically, the majors consist of required elements that develop critical thinking skills, knowledge, and excellence in written and spoken communication; elective concentrations that allow students to focus on a particular emerging research area at the intersection of biology and society; and extracurricular involvement in academic research and corporate/community internship. The mission is to educate students who become leaders in diverse areas such as law, medicine, humanities, social sciences, and biological sciences, and to have them interact and work together to form a deep understanding of the issues at the intersection of human social systems, evolutionary biology, and genetics.

The minor in Society and Genetics provides undergraduate students with the opportunity to understand and probe the complex problems and possibilities presented by modern genetics, with special attention to their social context and content. Given the dynamic interaction between genetics and the social world in which it is embedded, the minor is of necessity multidisciplinary and emphasizes a collaborative cross-disciplinary approach to instruction in the core courses of the minor and exposure to a wide range of disparate scholarship through elective courses available in such areas as anthropology, biology, history, philosophy, public policy, and sociology.

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**Undergraduate Study**

**Human Biology and Society BA**

**Learning Outcomes**

The Human Biology and Society major has the following learning outcomes:

- Demonstrated strong foundation of knowledge in social science and evolutionary biology and genetics
- Skills to critically analyze and evaluate qualitative and quantitative data and social biological theories
- Formulation of effective and convincing written and oral arguments that integrate biological and social evidence
- Work well in multidisciplinary teams
- Skills at communicating across disciplines and leveraging knowledge from multiple perspectives
- Demonstrated proficiency in at least one area of concentration at the interface between biology and society
- Integration of ethical, legal, and societal concerns in planning, conducting, and assessing research
- Use of societal and biological information to critically assess complex real-world problems
Admission

Admission to the Human Biology and Society BA major is by application and competitive, using courses, grades, grade-point averages, and personal statements as minimum standards for consideration. Only a limited number of students are admitted each year. Applicants are not automatically accepted into the major.

Students must apply for major standing at the beginning of spring quarter of their sophomore year. Applications submitted after the spring quarter deadline are considered during fall quarter of the junior year only as space in the program permits. No applications are considered after fall quarter of the junior year.

Premajor standing is not required to apply for the major. A copy of the major application is available on the department's website.

Preparation for the Major

Required Core: One course from Society and Genetics 5, M71A, or M72A, and then contact the undergraduate counselor in 3380 Life Sciences to request premajor standing.


Historical and Social Studies of Science: Anthropology 103, 113, 143, American Studies 105, Bioengineering 163EW, Disability Studies 101 or 101W, M121, Ecology and Evolutionary Biology 100, 120, C126, 130, 175, Environmental Health Sciences 100, C185A, C185B, Epidemiology 100, Gender Studies M134, M162, M164, M180B, Geography M125, M131, Global Studies 102, 104, History M151C, 179A, 179E, 180A, 180C, Honors College M177, Human Genetics C144, Life Sciences 107, Neurobiology M169, Philosophy 124, 125, 129, 130, 175, 155A, Society and Genetics 102, 120, 121, 130, 131, M134, M144, 160, 161, 162, 163, 164, 165, 175, 180, 188, 195CE, 197, 199, Sociology M138, 143, M148, 154, 156, 170. See below for additional course options in the subfocus areas of ecology and evolution, biology, and psychology and mental health.


Each course must be taken for a letter grade and passed with a grade of C– or better, and all courses must be completed with a cumulative minimum grade-point average of 2.0.

Optional Subfocus Areas

The subfocus options are designed and recommended for students who intend a career in medicine or allied health services or are planning to go on to graduate school in the life or health sciences. Students may select any subfocus option listed in their concentration area and complete three subfocus courses that may then be used to satisfy as many as three of the five courses required in their concentration area.

Cell Development: Molecular Cell, and Developmental Biology 138, 165A, 168

Ecology and Evolutionary Biology: Three courses from Anthropology 124P, 124Q, 124S, 126Q, 128P, Ecology and Evolutionary Biology 100, 116, 120, 121, C126, 129, 130, C135, 175, 176

Microbiology and Immunology: Microbiology, Immunology, and Molecular Genetics 101, C185A, and one course from 103AL, 106, 107, 158, or 168

Molecular Biology and Genomics: Molecular Cell, and Developmental Biology 144, 172, and one course from CM156, Human Genetics CM124, CI44, Microbiology, Immunology, and Molecular Genetics CI42, or 158

Physiology: Physiological Science 111A, 111B, and one course from 147, 149, or 177

Population Genetics: Two courses from Ecology and Evolutionary Biology C135, Human Genetics CM124, Society and Genetics 120, and one course from Ecology and Evolutionary Biology 120, 121, or Human Genetics CI44

Psychology and Mental Health: Three courses from Psychology M107, 112A, 112B, 115, 127A, 129C

Human Biology and Society BS

Learning Outcomes

The Human Biology and Society major has the following learning outcomes:

- Demonstrated strong foundation of knowledge in social science and evolutionary biology and genetics

and to employ interdisciplinary skills to help solve them
• Skills to critically analyze and evaluate qualitative and quantitative data and social biological theories
• Formulation of effective and convincing written and oral arguments that integrate biological and social evidence
• Demonstrated broad comprehension of mathematical, physical, and life sciences as preparation for medical school
• Work well in multidisciplinary teams
• Skills at communicating across disciplines and leveraging knowledge from multiple perspectives
• Demonstrated proficiency in at least one area of concentration at the interface between biology and society

Integration of ethical, legal, and societal concerns in planning, conducting, and assessing research
Use of societal and biological information to critically assess complex real-world problems and to employ interdisciplinary skills to help solve them
Use of societal and biological information to critically assess complex real-world problems and to employ interdisciplinary skills to help solve them

Admission
Admission to the Human Biology and Society BS major is by application and competitive, using courses, grades, grade-point averages, and personal statements as minimum standards for consideration. Only a limited number of students are admitted each year. Applicants are not automatically accepted into the major.

Students must apply for major standing at the beginning of spring quarter of their sophomore year. Applications submitted after the spring quarter deadline are considered during fall quarter of the junior year only as space in the program permits. No applications are considered after fall quarter of the junior year.

Premajor standing is not required to apply for the major. A copy of the major application is available on the department major web page.

Preparation for the Major
Required Core: One course from Society and Genetics 5, M71A, or M72A.

Also required are Anthropology 1; Chemistry and Biochemistry 14A, 14B, 14L, 14C, 14D (or 20A, 20B, 20L, 30A, 30AL, 30B); Life Sciences 30A, 30B, and 40 or Statistics 13, or Mathematics 3A, 3B, 3C, and Statistics 10 or 13, or Mathematics 31A, 31B, 32A, and Statistics 10 or 13, Physics 1A, 1B, 4A, 4B (or 5A, 5B, 5C); and two social theory courses from American Indian Studies M10, Anthropology 3, Asian American Studies 20, Chicano and Chicano Studies 10A, 10B, Clusters M1A through 80CW, Gender Studies 10, Geography 3, History 3C, Molecular, Cell, and Developmental Biology 40, 50, 60, Philosophy 4, 6, 8, 22 or 22W, Public Policy 10A, Society and Genetics 85, Sociology 1, M5.

Students must also complete one of two life sciences sequences—either Life Sciences 1, 2, 3, 4, and 23L, or 7A, 7B, 7C, and 23L. They may not substitute courses in either sequence.

Each course must be taken for a letter grade, and students must complete all premajor courses with a cumulative minimum grade-point average of 2.5.

Transfer Students
Transfer applicants to the Human Biology and Society BS major with 90 or more units must complete the following introductory courses prior to admission to UCLA: one year of general biology with laboratory for majors, preferably equivalent to Life Sciences 1a and 2, or 7A, 7B, and 7C, one year of calculus, one year of general chemistry with laboratory for majors, and one semester of organic chemistry with laboratory.

Transfer applicants must also complete at least two of the following introductory courses prior to admission to UCLA: one statistics course, one anthropology human evolution course, and two introductory social sciences or history courses. A second semester of organic chemistry or one year of calculus-based physics is strongly recommended but not required for admission. Society and Genetics 5 must be taken at UCLA once a transfer student is admitted to the University.

Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

The Major
Required: Life Sciences 107 (if Life Sciences 7A, 7B, 7C, and 23L are taken); Society and Genetics 102, 105A, 105B, 108: 4 units from course 195CE, 196, or 199; and five courses (at least one of which must be a society and genetics course) from one of the following concentration areas:


Each course must be taken for a letter grade and passed with a grade of C– or better, and all courses must be completed with a cumulative minimum grade-point average of 2.0.

Optional Subfocus Areas
The subfocus options are designed and recommended for students who intend a career in medicine or allied health services or are planning to go on to graduate school in the life or health sciences.
Students may select any subfocus option listed in their concentration area and complete three subfocus courses that may then be used to satisfy as many as three of the five courses required in their concentration area.

Cell Development: Molecular, Cell, and Developmental Biology 138, 165A, 168

Psychology M107, 112A, 112B, 115, 127A, 129C

Ecology and Evolutionary Biology: Three courses from Anthropology 124P, 124Q, 124Q, 128P, Ecology and Evolutionary Biology 100, 116, 120, 121, 126, 129, 130, CI15, 175, 176

Microbiology and Immunology: Microbiology, Immunology, and Molecular Genetics 101, CI15A, and one course from I03AL, 106, 107, 158, or 168

Molecular Biology and Genomics: Molecular, Cell, and Developmental Biology 144, 172, and one course from CM156, Human Genetics CM124, CI144, Microbiology, Immunology, and Molecular Genetics CI122, or CI158

Physiology: Physiological Science 111A, 111B, and one course from I47, 149, or 177

Population Genetics: Two courses from Ecology and Evolutionary Biology CI15, Human Genetics CM124, Society and Genetics 120, and one course from Ecology and Evolutionary Biology 120, 121, or Human Genetics CI144

Psychology and Mental Health: Three courses from Psychology M107, 112A, 112B, 117A, 129C

Honors Program

To receive departmental honors, students must take each course in the major for a letter grade and complete all upper-division courses in the major with an overall grade-point average of 3.5 or better. For highest departmental honors, students must also take Society and Genetics 197 or 199 in which they write a research paper in their major concentration area and receive a grade of A or better.

Society and Genetics Minor

Admission to the Society and Genetics minor is by application and competitive, using courses, grades, grade-point averages, and personal statements as minimum standards for consideration. Applicants must be in their junior year and have an overall grade-point average of 2.5 or better. Only a limited number of students are admitted each year. Applicants are not automatically accepted into the minor. Students must apply for admission to the minor at the beginning of fall quarter of their junior year. No applications are considered after that.

Information about the application process is available on the minor website and by consultation with the undergraduate counselor in 3360 Life Sciences.

Required Upper-Division Courses (30 to 34 units): Society and Genetics 101 (or, if Life Sciences 4 or 107 has been completed, one course from the approved list of electives), 102, 191, and at least four additional upper-division elective courses (minimum 16 units) from the approved list.


Students may petition to have a course not on the approved list applied toward the four-course elective requirement. Contact the undergraduate counselor in 3360 Life Sciences.

A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor.

Each minor course must be taken for a letter grade of C– or better. Successful completion of the minor is indicated on the transcript and diploma.

Society and Genetics Lower-Division Courses

5. Integrative Approaches to Human Biology and Society.

(Same as Anthropology M101B-M101C.) Lecture, three hours; discussion, one hour. This course introduces problem-based approaches to study of biology and society and areas of concentration, such as bioethics and public science policy, evolutionary biology, culture, and behavior, historical and social studies of life sciences, medical epigenetics and public health, and population genetics and history, and central thematic issues shared across concentrations, such as commercialization of life and public understanding of science. Letter grading.

19. Fiat Lux Freshman Seminars. (1 Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

M71A-M71B-M71C. Biotechnology and Society. (6–6–6) (Same as Clusters M71A-M71B-M71C.) Lecture M71A is enforced requisite to M71B, which is enforced requisite to M71C. Lecture, three hours; discussion, two hours. Exploration of methods, applications, and implications of biotechnology and of ethical, social, and political implications as well as biological underpinnings. M71C, Special Topics. Seminar, three hours. Enforced requisite: course M71B. Topics include in-depth examination of ethics and human genetics, bioweapons and biodefense, sex and biotechnology. Satisfies Writing II requirement.

M72A-M72B-M72C. Sex from Biology to Gendered Society. (6–6–6) (Same as Communication M72A-M72B-M72C, Clusters M72A-M72B-M72C, and Sociology M72A-M72B-M72C.) Lecture M72A is enforced requisite to M72B, which is enforced requisite to M72C. Limited to first-year freshmen. Letter grading. M72A-M72B. Lecture, three hours; discussion, two hours. Examination of many ways in which sex and sexual identity shape and are shaped by biological and social forces, approached from complementary perspectives of anthropology, biology, medicine, and sociology. Specific topics include biological origins of sex differences, intersex, gender identity, gender inequality, homosexuality, sex differences, sex/gender and law, and politics of sex research. M72C, Special Topics. Seminar, three hours. Enforced requisite: course M72B. Topics may include policies of reproduction, sexuality, sexual identity, social construction of order in reproductive technologies. Satisfies Writing II requirement.

85. Critical Study of Health, Sickness, and Healing in Global Perspective. (4) Lecture, three hours; discussion, one hour. Introduction to sociocultural, historical, and global study of health and sickness. Use of case studies of globally important infectious and chronic diseases (diabetes, Ebola, HIV/AIDS) to analyze factors, including key dimensions of diversity (class, gender, urban/rural development) that influence how populations variously experience, understand, and cope with sickness. Special focus on relationships between Western medicine and traditional and alternative approaches to healing. Letter grading.

89. Honors Seminars. (1 Seminar, three hours. Limited to 20 students. Designed as adjunct to lower-division lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

98HC. Honors Contracts. (1) Tutorial. Three hours. Limited to 12 students. Enrolled in Communication CI151A. Design- as adjunct to lower-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental reading, research, and other activities. Consistent requirements for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

99. Student Research Project. (1 to 2) Tutorial (supervised research or other scholarly work), three hours per week per unit. Entry-level research for lower-division students under guidance of faculty mentor. Students must be in good academic standing and enrolled in minimum of 12 units (including this course). Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP grading.

Upper-Division Courses

101. Genetic Concepts for Human Sciences. (5) Lecture, three hours; discussion, one hour. Not open to students with credit for Sciences 4. Focuses on growth of basic therapy through problem-based approaches to study of biology and society and areas of concentration, such as commercialization of life and public understanding of science. Letter grading.

89. Honors Seminars. (1 Seminar, three hours. Limited to 20 students. Designed as adjunct to lower-division lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

98HC. Honors Contracts. (1) Tutorial. Three hours. Limited to 12 students. Enrolled in Communication CI151A. Design- as adjunct to lower-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental reading, research, and other activities. Consistent requirements for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

99. Student Research Project. (1 to 2) Tutorial (supervised research or other scholarly work), three hours per week per unit. Entry-level research for lower-division students under guidance of faculty mentor. Students must be in good academic standing and enrolled in minimum of 12 units (including this course). Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP grading.
administration, commercial, and legal contexts. Photography is used in sciences and medicine (e.g., X-ray photography), as well as in art and forensics. Letter grading.

105B. Problems of Identity at Biology/Society Interface. (4) Lecture, three hours; discussion, one hour. Requisite: course 101 or Anthropology 1, or Life Sciences 141. Exploration of selected hot topics in field such as importance of immortality and technical suppression of death, utility of different cultural practices and technologies. Topics include rubber boom, indigenous resistance to oil exploration, hydroelectric dams and clean energy, deforestation arc, and international land grabs for soy plantations. Highlights value of different kinds of knowledge and expertise for current crises in Amazon. Letter grading.

134. Stress and Society: Biology and Inequality. (4) Same as Sociology M144.) Lecture, three hours; discussion, one hour. Integration of primary scientific literature on common-sense understandings of health and biological and environmental influences in human disease. Exploration of how individuals at different geographic scales, using readings and class participation, understand and respond to stress in daily life. Prerequisite: Life Sciences 1 and 4, or 7A and 7B. Combines topics posed in popular graphic novels, movies, and television with primary scientific literature to explore bizarre phenomena in natural world and discover history and science of stress. Topics covered include evolution, genetics, physiology, biochemistry, brain-machine interfacing, and artificial intelligence among others. Students synthesize primary literature on diverse subjects presented. Letter grading.

161. Politics of Heredity. (4) Seminar, three hours. Exploration of intersection of politics and genetics in liberal democracies and totalitarian regimes. How genetics has been used to consolidate and undermine political authority, and how political authority has been employed to both promote and restrict genetics. Consideration of several historical episodes such as rise to power in Soviet Union of T.D. Lysenko, peasant agronomist who rejected Mendelism in favor of quasi-Lamarckian approach to genetics; participation of geneticians in creation of racial scientific theories; and debates over compulsory sterilization of mental defectives in U.S., Canada, and Europe from 1920s to 1940s. Contemporary cases such as controversies over genetically modified foods and regulation of recombinant technologies, and rise of disease advocacy groups as important players in determining funding and direction of genetic research. Letter grading.

162. Controversy and Behavior Genetics. (4) Seminar, three hours. Behavior genetics is controversial and seeks genetic links to intelligence, personality, mental illness, and criminality, among many other traits. Controversy involves differences among men and women, or racial groups, and what social policies might do about those differences. Analysis of causes and effects of controversy in behavior genetics using critical sociology and history. Consideration of scien-
163. Science and Popular Movements: Controversy, Conflict, and Collaboration. (4) Seminar, three hours. Historical and philosophical analysis of myth of separation between science and society. Controversies between science, genetics and biotechnology, medical research, and environmentalism show examples of popular science where scientists and nonscientists interact in surprising ways. Science often falls within different sociocultural accounts of brain-based pathology (and identity) to Mad Pride movement emphasis on mental diversity. During philosophical questions regarding personal identification, consciousness, and mind, identity and sovereignty are investigated through consideration of conditions such as dissociative identity disorder, trauma, psychosis, autism, and depression. P/NP or letter grading.

168. Special Courses in Society and Genetics. (4) Lecture, three hours. Departmentally sponsored experimental or temporary courses on selected topics, such as those taught by visiting faculty members. May be repeated for credit with topic change. Letter grading.

180. M183S. Being Human: Identity in Age of Genomics and Neuroscience. (4) [Same as Disability Studies M183 and Honors Collegium M183] Seminar, three hours. Exploration of relationship between identity and mental illnesses through different approaches to nature and treatment of mental biomedical accounts of brain-based pathology (and identity) to Mad Pride movement emphasis on mental diversity. During philosophical questions regarding personal identification, consciousness, and mind, identity and sovereignty are investigated through consideration of conditions such as dissociative identity disorder, trauma, psychosis, autism, and depression. P/NP or letter grading.

185A. Individual Studies for USIE Facilitators. (1) Tutorial, to be arranged. Enforced corequisite: Honors Collegium 101E. Individual study in regularly scheduled meetings with faculty mentor to discuss selected USIE seminar topic, conduct preparatory research, and begin preparation of syllabus. Individual contract with faculty mentor required. May not be repeated. Letter grading.


188A. Individual Studies for USIE Facilitators. (4) Tutorial, to be arranged. Enforced corequisite: Honors Collegium 101E. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor providing support and guidance as they work on one topic presented in the course. Assigned readings and tangible evidence of work presented for faculty mentor's review. May be repeated for credit with topic change. Letter grading.

188B. Individual Studies for USIE Facilitators. (4) Tutorial, to be arranged. Enforced corequisite: Honors Collegium 101E. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor to discuss selected USIE seminar topic, conduct preparatory research, and begin preparation of syllabus. Individual contract with faculty mentor required. May not be repeated. Letter grading.

188C. Individual Studies for USIE Facilitators. (2) Tutorial, to be arranged. Enforced corequisite: Honors Collegium 101E. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor providing support and guidance as they work on one topic presented in the course. Assigned readings and tangible evidence of work presented for faculty mentor's review. May be repeated for credit with topic change. Letter grading.

189. Advanced Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as an introduction to undergraduate lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

189HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designated to encourage maximum of 16 students in the course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 2 credits. Individual contract required. Honors content noted on transcript. Letter grading.

190. Research Colloquia in Society and Genetics. (1) Seminar, one hour. Limited to juniors/seniors. Designed to bring together advanced undergraduate students undertaking faculty-supervised tutorial research to discuss their own work or related work in society and genetics. May be repeated once for credit with topic change. P/NP grading.

191. Variable Topics Research Seminars: Perspectives in Society and Genetics. (5) Seminar, three hours. Enforced prerequisites: courses 101 (or Life Sciences 4), M102. Discussion of societal issues from historical perspective. How science of genetics itself is deeply social. Study of how biologists and anthropologists conceptualize relations and perspectives on human nature, human flourishing, and dignity that seem to privilege nature as something that can guide ethical thought and action. How these accounts would encourage or discourage people from manipulating their genetic inheritance. Consideration of what is new in new genetics. Current discussions of promise and peril of genetics in relation to society. Culuminating paper required. May be repeated once for credit with topic change. Letter grading.

191R. Capstone Seminar: Human Biology and Society. (5) Seminar, three hours. Enforced prerequisites: courses 101 (or Life Sciences 4), M102. Discussion of genetics and society from historical perspective. How science of genetics itself is deeply social. Study of how biologists and anthropologists conceptualize relations and perspectives on human nature, human flourishing, and dignity that seem to privilege nature as something that can guide ethical thought and action. How these accounts would encourage or discourage people from manipulating their genetic inheritance. Consideration of what is new in new genetics. Current discussions of promise and peril of genetics in relation to society. Culuminating paper required. May be repeated once for credit with topic change. Letter grading.

191S. Capstone Seminar: Society and Genetics. (5) Seminar, three hours. Enforced prerequisites: courses 101 (or Life Sciences 4), M102. Discussion of genetics and society from historical perspective. How science of genetics itself is deeply social. Study of how biologists and anthropologists conceptualize relations and perspectives on human nature, human flourishing, and dignity that seem to privilege nature as something that can guide ethical thought and action. How these accounts would encourage or discourage people from manipulating their genetic inheritance. Consideration of what is new in new genetics. Current discussions of promise and peril of genetics in relation to society. Culuminating paper required. May be repeated once for credit with topic change. Letter grading.

195CE. Community or Corporate Internships in Society and Genetics. (4) Tutorial, to be arranged; field work, eight to 10 hours. Limited to juniors/seniors. Internship in corporate, governmental, or nonprofit setting coordinated through Center for Community Learning. Students complete a written proposal, attend biweekly meetings with graduate student coordinator, and write final research paper. Faculty sponsor and graduate student coordinator select student for placement that examines issues related to internship site. May be repeated for credit with consent of Center for Community Learning. Individual contract with supervising faculty member required. Letter grading.

196. Research Apprenticeship in Society and Genetics. (2) Tutorial, six hours. Limited to juniors/seniors. Entry-level research opportunities in society and genetics under guidance of faculty mentor. May be repeated for maximum of 4 units. Individual contract required. P/NP or letter grading.

197. Individual Studies in Society and Genetics. (2 to 4) Tutorial, to be arranged. Limited to juniors/seniors. Individual intensive study, with scheduled meetings to be arranged between faculty member and student. Assigned readings and tangible evidence of
Sociology / 737

Sociology

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Aliza R. Luft, PhD
Desi Rodriguez-Lonebear, PhD
Giovanni Rossi, PhD

Undergraduate Study

Sociology BA

Learning Outcomes
The Sociology major has the following learning outcomes:

• Critical evaluation of social and political arguments using empirical data
• Effective and convincing formulation of written and oral arguments that integrate sociological evidence
• Demonstrated understanding of the difference between an individual-level and collective-level explanation of behavior
• Demonstrated understanding of the major sociological methods, including interviewing, ethnography, conversation analysis, content analysis, survey design, and statistical analysis, the types of questions they can be used to answer, and their limitations
• Demonstrated familiarity with several major classical contemporary sociological theoretical perspectives and how they can be used to analyze contemporary or historical events or phenomena
• Understanding of some ways in which biographies are shaped by institutions, patterns of social inequality, or cultural practice

Premajor
Only students with fewer than 90 units completed (excluding Advanced Placement units/credit) may declare the Sociology major once they complete either Sociology I or 20 with a grade of C or better.

Scope and Objectives
Sociology is the study of the organization, dynamics, and consequences of social life. The scope of the discipline is as broad and diverse as social life itself. Sociologists study social interaction and relationships, organizations and institutions, communities and whole societies. The methods of sociological investigation are also varied: sociologists immerse themselves in the daily life of groups, interview group participants, examine recorded interaction, interpret historical documents, analyze census data, and conduct large surveys. The methods and concepts of sociology yield powerful insights into the social processes shaping lives, problems, and possibilities in contemporary society. The capacity to identify and understand these processes—a capacity that C.W. Mills called the "sociological imagination”—is valuable preparation for personal and professional participation in a changing and complex world.

In addition to contributing to a liberal arts education, the Sociology major prepares individuals for a broad range of career options and graduate and professional studies. The analytic perspectives and skills gained in the major are a foundation for careers in law, social welfare, urban planning, business, education, and public health. The major also supplies a foundation for students intending to pursue graduate work in sociology and related fields. Employment opportunities available to the graduate with a Bachelor of Arts degree in Sociology also include work in community service organizations and health agencies, government service, and human resources.

The Department of Sociology faculty includes internationally renowned scholars who address topics ranging in scope from the organization of face-to-face interaction to the consequences of globalization. The department boasts outstanding teachers—five of whom have won Distinguished Teaching Awards—and excellently trained teaching assistants, many of whom have also won awards. The select honors program has a record for training students in the fundamentals of research and generating honors theses of substantial accomplishment.

The PhD in Sociology usually leads to a career in research and/or teaching. Although most sociologists are employed by universities, there are increasing career opportunities in government and other non-university research centers.
Preparation for the Major

Required: Sociology 1, 20, and one course from Political Science 6, Statistics 10, or 13.

A minimum grade of C is required in each preparation for the major course. Students with a grade-point average less than 2.0 in the preparation coursework are not eligible for admission to the major. Students who repeat any preparation course more than once are automatically denied admission to the major.

Freshman Students

Students must petition to declare the Sociology major. If Sociology 101 or 102 has already been completed, a grade of C or better is required. Grades in any other completed sociology courses for the major must be C– or better.

Transfer Students

Transfer applicants to the Sociology premajor with 90 or more units must complete the following introductory courses prior to admission to UCLA: one introduction to sociology course and one statistics course.

Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

The Major

Required: Eleven upper-division courses, including (1) two theory courses—Sociology 101, 102; (2) one methods course from Sociology 104A, 106A, 104B, 106B, 110, 111, 112, 113, 121A, 191H, or Statistics 112; (3) one course from each of the following core areas: (a) interactions—Sociology 111, 121A, CM125, 126, 130, 132, 133, 134, or 152, (b) institutions and social processes—course 116, 121, 143, 151, 158, 172, 173, 174, 175, 176, or 1818, (c) power and inequality—course M151, 122, 123, 147A, M155, 156, 157, M161, M162, M164, M165, M168, 181A, 182, 183, 185, or 186; and (4) any five upper-division sociology elective courses.

Students should complete course 101 and the core courses before taking other upper-division courses. Each course for the major must be taken for a letter grade. To graduate, students must have at least a 2.0 grade-point average in their upper-division major courses, with grades of C or better in Sociology 101 and 102.

Only 8 units of Sociology 199 are allowed. The two theory courses, three core area courses, one methods course, and one sociology elective (seven courses total) must be taken while in residence in the College of Letters and Science at UCLA.

Honors Program

The honors program in sociology provides opportunity for outstanding students to undertake an independent year-long research project under the guidance of a faculty member. Students who successfully complete the honors program graduate with departmental honors.

As preparation for the honors program, students must complete all preparation for the major courses.

After acceptance into the honors program, students are required to take courses 191H, 198A, 198B, and 198C (honors thesis seminars) which may be applied as electives toward the major requirements.

Students must have a 3.5 overall grade-point average, have completed the sociology preparation requirements and, in most cases, have completed the required theory course. Applications are available from the undergraduate adviser’s office, 254E Haines Hall.

Computing Specialization

Majors in Sociology may select a specialization in Computing by (1) satisfying all the requirements for a bachelor’s degree in the major; (2) completing Program in Computing 10A, 10B, 10C, and (3) completing Sociology 111, 113. Each course must be taken for a letter grade. Students graduate with a bachelor’s degree in sociology and a specialization in Computing.

Graduate Study

Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Division website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Graduate Degrees

The Department of Sociology offers four Master of Arts (MA), Candidate in Philosophy (CPhil), and Doctor of Philosophy (PhD) degrees in Sociology.

Sociology

Lower-Division Courses

1. Introductory Sociology. (5) Lecture, four hours; discussion, one hour. Survey of characteristics of social life, processes of social interaction, and tools of sociological investigation. P/NP or letter grading.

2. Social Organization of Black Communities. (5) (Same as African American Studies M5.) Lecture, four hours; discussion, one hour; field trips. Analysis and interpretation of social organization of black communities, competing theories and research findings, defining characteristics and contemporary issues. Letter grading.

3. Social Thought and Origins of Sociology. (5) Lecture, three hours; discussion, two hours. Introduction to history of social thought, with special emphasis on theoretical precursors to development of discipline of sociology. Exposition and analysis of selected social theorists and concepts, especially from the 17th to 19th centuries. Letter grading.

4. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics in sociology at introductory level. May be repeated for credit.

5. American Racism: Psychosocial Analysis. (5) Lecture, four hours; discussion, one hour. Examination of long-standing history of American racism, beginning with institution of slavery, Jim Crow legislation, separate but equal doctrine, Brown versus Board of Education, Civil Rights legislation of 1960s, and Obama presidency. Focus on persistence over time of racist beliefs and mechanisms through which racism becomes passed on from one generation to next. Focus in particular on African American experience and how it impacts on African American community, as well as on nation as whole. Examination of psychology and sociology of racism through video clips, social scientific texts, essays by prominent American historians, and American literature that deals centrally with racism. P/NP or letter grading.

51. Sociology of Migration. (5) Lecture, three hours; discussion, one hour. Introduction to fundamental theories, themes, and research methods used in sociological research through comparative study of international migration. Examination of theoretical debates and empirical research on causes and consequences of transnational migration in countries of origin and destination, with focus on issues of race, ethnicity, social networks, development, citizenship, and state in comparative context. Letter grading.

M72A-M72B-M72CW. Sex from Biology to Gendered Society. (6–6–6) (Same as Communication M72A-M72B-M72CW, Clusters M72A-M72B-M72CW, and Society and Genetics M72A-M72B-M72CW.) Course M72A is enforced requisite to M72B, which is also enforced requisite to M72CW. Limited to first-year freshmen. Letter grading. M72A-M72B. Lecture, three hours; discussion, two hours. Examination of many ways in which sex and sexual identity shape and are shaped by biological and social forces, approached from complementary perspectives of anthropology, biology, medicine, and sociology. Specific topics include biological origins of sex differences, intersex, gender identity, gender inequality, homosexuality, sex differences, sex/gender and law, and politics of sex research. M72CW. Special Topics. Seminar, three hours. Enrollment requires a course M72B. Topics may include politics of reproduction, sexuality, sexual identity, social construction of gender, and reproductive technologies. Satisfies Writing II requirement.

69. Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to lower-division lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

69HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to lower-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for a maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

97. Variable Topics Research Seminars: Sociology. (1 to 5) Lecture, one hour. Designed for freshmen/sophomores. Study of selected topics in sociology at introductory level. May be repeated for credit. Letter grading.

99. Student Research Program. (1 to 2) Tutorial (supervised research or other scholarly work), three hours per week per unit. Entry-level research for lower-division students under guidance of faculty mentor. Students must in good academic standing and enrolled in minimum of 12 units (excluding this course). Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP grading.

Upper-Division Courses

101. Development of Sociological Theory. (5) Lecture, three hours; discussion, one hour. Comparative survey of basic concepts and theories in sociology from 1850 to 1920. P/NP or letter grading.

106A. Field Research Methods I. (6) Lecture, two hours; discussion, two hours; fieldwork, eight to ten hours. Research practicum in which students write field notes on their experiences in and observations of intensive internship field placement. Readings focus on fieldwork techniques, observations, interviewing, and data collection, writing field notes, field interviewing, ethical issues, and preliminary data analysis. Fieldwork and extensive field notes required. Letter grading.

106B. Field Research Methods II. (6) Lecture, two hours; discussion, two hours; fieldwork, 10 hours. Requisite: course 106A. Collection and analysis of both field notes and unstructured interview data from student field placement. Use of techniques of qualitative data analysis, including qualitative coding, analytical memoing, and grounded theory methods, to analyze these materials and to write ethnographic paper. Letter grading.

110. Sociothorical Methods. (4) Lecture, three hours; discussion, one hour. Designed for juniors/seniors. General problems of scientific abstraction, generalization, inference, and verification of particular problems. The use of abstraction to structure, compare, and counterfactually reason in constructing and testing replicable explanation of historical event. P/NP or letter grading.

111. Social Networks. (4) Lecture, three hours; laboratory, one hour. Analysis of how social networks create social structure, how social actors utilize them, and their unexpected effects. Topics include job search, firm efficiency, and social movements, Visualizing programs, computer simulations, and research project. P/NP or letter grading.

112. Introduction to Mathematical Sociology. (4) Lecture, three hours; laboratory, one hour. Requisites: Mathematics 2, 3A (course whose content includes introductions to probability theory, matrix algebra, and differential and integral calculus). Statistics 10. Mathematical treatment of several sociological phenomena, such as organizational mobility, population growth, organizational structure, and friendship patterns, each covered in some detail, including initial development and subsequent evaluation and modification (emphasizing both deductive and computational aspects of mathematics). Letter grading.


M115. Environmental Sociology. (4) (Same as Environment M133 and Society and Genetics M133.) Lecture, three hours; discussion, one hour. Relationship between society and environment. Analysis in detail of interrelations of social factors (such as class, race, gender, and religion) and environmental factors (such as pollution, waste disposal, sustainability, and global warming) in our society.


117. Family Demography. (4) Lecture, three hours; discussion, one hour. Examination of demographic behaviors, such as marriage, divorce, and childbearing, as well as organized population strategy and household organization. Sociological approach to understanding causes and consequences of trends and differentials in family formation and dissolution. P/NP or letter grading.

M118. Simulating Society: Exploring Artificial Communities. (3) (Same as Honors Colloquium M148.) Seminar, three hours; computer laboratory, one hour. Examination of social behavior through computer simulations of interaction in artificial communities. P/NP or letter grading.

119. Primate Societies. (4) Lecture, three hours; discussion, one hour. Limited to juniors/seniors. Selected topics on diverse behaviors and cultural forms of pri- mate societies, with special focus on baboons, chimpanzees, and orangutans. Introduction to primates soci- ology, sexual competition, demography and kinship, politics, communication, and interactions within and between primate groups for our lives as human primates. P/NP or letter grading.

M120. Disability Rights Law. (4) (Same as Disability Studies M149.) Lecture, four hours. Examination of disability-related issues impacting people of all ages across wide spectrum of settings in both public and private sectors—from preschool to higher education, from military to workplace, and from intensely urban environments to online and virtual worlds. Topics range from persistent and recurring disputes to novel controversies fueled by new technologies and changing times. P/NP or letter grading.

121. Sociology of Religion. (4) Lecture, three hours; discussion, one hour. Examination of classic and con- temporary sociological theory of religion. Analysis of definition of religion, role of religion in modern life, and role of categories like Islam in con- temporary U.S. politics. Focus on complicated ques- tion of what it means, and why something is religious: does that mean they are moral, believe in God, or are part of community of believers? Students gain better sense of how to think and talk about reli- gion. P/NP or letter grading.

122. Sociology of Violence. (4) Lecture, three hours; discussion, one hour. Exploration of macro-, meso-, and micro-level theories of violence, why states organize violence, why civilizations participate in violence, and physical, symbolic, and social violence. Dis- cussion of how various social categories such as race, ethnicity, religion, class, gender, and sex are implic- itly involved in violence and examination of cases of inter- state war, genocide, civil war, terrorism, and pogroms from around world.

123. Social Change. (4) Lecture, three hours; discussion, one hour. How does social change occur? This question is linked to debates in sociology about structure (degree to which individual's actions are constrained by social forces) and agency (degree to which individuals can choose their own causes of action). Major topics include Weberian (structural, demo- graphic, and strategic action) of social change take different views of structure and agency. Consideration of these theoretical issues in context of social change by considering empirical examples. P/NP or letter grading.

M124A-M124B. Conversational Structures I, II. (4-4) (Same as Communication M144A-M144B.) Lecture, three hours; discussion, one hour, P/NP or letter grading. M124A. Introduction to some structures that are employed in organization of conversational inter- action, such as turn-taking organization, organization of repair, and some sequence structures with limited expansion. M124B. Lecture, four hours; discussion, one hour. Designed for juniors/seniors. Practices of communication and social interaction in number of major institutional sociocultural setting. Setting vary but may include emergency services, police and courts, medicine, news interviews, and political oratory. Concurrently scheduled with course C258, P/NP or letter grading.

126. Study of Norms. (4) Lecture, three hours; dis- cussion, one hour. Properties of norms, of normatively governed conduct, of lay and professional methods for describing, producing, using, and validating norms in contrasting settings of socially organized activities; relevance of these properties for problematic programs of analytic sociology. Fieldwork required. P/NP or letter grading.

127. Mind and Society. (4) Lecture, two and one half hours; discussion, one hour. Requisite: course 1. Study of social production of modes of thought and form of knowledge. Study of knowledge production and cognitive styles are produced, used, and transformed in everyday, organizational, and extra-ordinary contexts. P/NP or letter grading.


129. Sociology of Time. (4) Lecture, three hours; dis- cussion, one hour. Conceptualization of time seen from scientific, philosophical, historical, and sociolog- ical perspectives; “cyclical” and “linear” time in primi- tive, classical, and modern societies, and experience of the eternal; structuring of urban, modern, and postmodern societies by clock, calendar, and schedule, future value orientation and notion of possibility; environment, labor, and social domination. P/NP or letter grading.

130. Self and Society. (4) Lecture, three hours; discussion, one hour. Examination of social processes shaping experiences, definitions of self, and personal identity. P/NP or letter grading.

131. Careers in Sociology. (4) Lecture, three hours. Limited to juniors/seniors. Examination of possible care- er paths for Sociology majors, including such fields as business, nonprofit sector, government, healthcare, entertainment, and other areas. Development of care-er-relevant materials and skills. Letter grading.

132. Social Psychology: Sociological Approaches. (4) Lecture, three hours; discussion, one hour. Survey of contribution of sociologists to theory and research in social psychology, including theories of social control; conformity and deviation; reference groups; and interaction process. P/NP or letter grading.

133. Collective Behavior. (4) Lecture, three hours; discussion, one hour. Requisite: course 1. Designed for juniors/seniors. Characteristics of crowds, mobs, publics, social movements, and revolutions; their rela- tion to social unrest and their role in developing and changing social organization. P/NP or letter grading.


M138. Death, Suicide, and Trauma. (4) (Same as Psychology M163.) Lecture, three hours; discussion, one hour. Sociological analysis of incidence of violent death. Suicide is eighth leading cause of death in U.S. and third leading cause for young people aged 15 to 24. Both kinds of violent deaths are often dismissed as extreme psychopathology, reflecting the sacred and personal identity. P/NP or letter grading.

141A. Migration and Labor in Mexico-U.S. Context. (5) Seminar, 20 hours. Mexico-U.S. migration is largest and oldest continuous population flow of contemporary world. In recent decades, prompted by swift economic transformations, rural and urban Mexi- cans from every corner of Mexico have joined this mi-
gratory flow, settling well beyond southwestern regions and into far-reaching areas of U.S. interior. Migration is binding U.S. and Mexico stronger than ever, putting this complex and multilayered phenomena at top of bilateral agenda. Examination of sociological dynamics of internal migration and labor as they apply to Mexico-U.S. context, including demographic, political, and economic dynamics of migration, economic and social infrastructures that support cross-border migration, and consequences of migration of bilateral, national, regional, and local labor markets. Comparative insights to contrast this flow with other contemporary population streams. Offered in summer only. Letter grading.

141B. Migration and Labor in Mexico-U.S. Context: Research Seminar. (5) Seminar, 10 hours; fieldwork, 10 hours. Development of qualitative micro-study and research paper on migration and labor in Mexico-U.S. context. Research focus of interest to be selected so students become familiar with commonly employed qualitative methods of research. Designed to help students understand the basics of sociological reasoning, how to formulate research questions, and how to frame and investigate one particular issue related to migration and labor. How to make ethical decisions about conducting research. Development of student abilities as researchers by conducting secondary and primary research culminating in final research paper to be presented to faculty members and peers. Offered in summer only. Letter grading.

1412. Healthcare Disparities in Transitional Communities. (4) (Same as Public Health M151.) Lecture, three hours; discussion, one hour. Analysis of social, cultural, economic, and political processes affecting organization and accessibility of healthcare in transitional and disadvantaged communities. Fieldwork required. Letter grading.


144. Stress and Society: Biology and Inequality. (4) (Same as Society and Genetics M144.) Lecture, three hours; discussion, one hour. Integrative view of social stressors, intentional violence, and the sociocultural context of biological processes by which people process and people-changing institutions as context for considering biological issues in juvenile justice. P/NP or letter grading.

150. Sociology of Aging. (4) (Same as Gerontology M150.) Lecture, three hours; discussion, one hour. Study of sociological processes shaping definition, experience, and meaning of contemporary society. Topics include race, class, and gender in aging over life course; interpersonal relations and social worlds of aged; caregiving relations and institutions; professions concerned with aged and aging. Letter grading.

151. Comparative Immigration. (4) Lecture, three hours; discussion, one hour. Survey of immigration of European, Asian, and Latin American communities in the U.S. since the mid-19th century. Overview of immigration experience on ethno-racial groups that migrated voluntarily to this country, with emphasis on immediate postmigration settlement. P/NP or letter grading.

152. Comparative Acculturation and Assimilation. (4) Lecture, three hours; discussion, one hour. Requisite: course 151. Comparison of acculturation and assimilation of Europeans, Africans, Mexicans, and Asians in the U.S. and emphasis on long-term cultural consequences of immigration. P/NP or letter grading.

153. Chinese Immigration. (4) (Same as Asian American Studies M130C.) Lecture, three hours; discussion, one hour. Designed for juniors/seniors. Exploration of history and social conditions of Latinos in Los Angeles as well as nationally, with particular emphasis on their location in larger social structure and on comparisons with other minority groups. Topics include migration, family, education, and work issues. P/NP or letter grading.

154. Race and Ethnicity: International Perspectives. (4) Lecture, three hours; discussion, one hour. Not open to freshmen. Role of race and ethnicity in political, economic, and social lives of nations other than the U.S. P/NP or letter grading.

155. Latinos in U.S. (4) (Same as Chicana and Chicano Studies M155A.) Lecture, three hours; discussion, one hour. Designed for juniors/seniors. Exploration of history and social conditions of Latinos in Los Angeles as well as nationally, with particular emphasis on their location in larger social structure and on comparisons with other minority groups. Topics include migration, family, education, and work issues. P/NP or letter grading.

156. Race and Ethnicity in American Life. (4) Lecture, three hours; discussion, one hour. Role of race and ethnicity in the U.S., including interplay between racial and ethnic identity. Special attention to comparison of African American and European American experiences and to transformation of Asian American and Latino communities and the nation between race/ethnicity and mass migration in second half of the 20th century. P/NP or letter grading.

157. Social Stratification. (4) Lecture, three hours; discussion, one hour. Analysis of American social structure in terms of evaluational differentiation. Topics include criteria for differentiation, bases for evaluation, types of stratification, composition of strata and status systems, mobility, consequences of stratification, and problems of methodology. P/NP or letter grading.

158. Urban Sociology. (4) Lecture, three hours; discussion, one hour. Description and analysis of urbanization and urbanism in the U.S. and world. P/NP or letter grading.


162. Sociology of Gender. (5) (Same as Gender Studies M162.) Lecture, three hours; discussion, one hour. Enforced requisite: course 1 or Gender Studies 10. Examination of processes by which gender is socially constructed. Topics include distinction between biological sex and sociological gender, causes and consequences of gender inequality, and recent changes in gender relations in modern industrial societies. P/NP or letter grading.

163. Gender and Work. (4) (Same as Gender Studies M163.) Lecture, three hours. Requisite: course 1 or Gender Studies 10. Exploration of relationship of gender to work, concentrating on the U.S. experience but also including some comparative material. Particular emphasis on analysis of causes and consequences of job segregation by gender and of wage inequality. P/NP or letter grading.

164. Politics of Reproduction. (4) (Same as Gender Studies M164.) Lecture, three hours; discussion, one hour. Title refers to intersection between political economy and social reproduction. Study of the social construction of gender and population, reproductive issues, politicization of mothers, motherhood, and mothering, surro- gacy, and new reproductive technologies. Letter grading.

165. Sociology of Race and Labor. (4) (Same as African American Studies M165 and Labor Studies M165.) Lecture, three hours; discussion, one hour. Limited to juniors/seniors. Exploration of relationship between race, ethnicity, employment, and U.S. labor movement. Analysis of underlying racial divisions in workforce and how they evolved historically. Consideration of circumstances under which workers and unions have excluded people of color, as well as circumstances under which workers and unions have organized people of color into unions in efforts to improve their wages and working conditions. Impact of globalization on these dynamics. P/NP or letter grading.

168. Organizations and Society. (4) Lecture, three hours; discussion, one hour. Sociological analysis of organizations and their social environment. Introduction to basic theories, concepts, methods, and research on behavior of organizations in society. P/NP or letter grading.

169. Law and Society. (4) Lecture, three hours; discussion, one hour. Specific topics may include law in preindustrial and industrialized societies, legal and social environment of contemporary society on family, social relationships, participants’ experiences of legal processes, perceptions of justice, social movements toward equal justice, roles of lawyers and judges, social impact of court decisions. P/NP or letter grading.

170. Medical Sociology. (4) Lecture, three hours; discussion, one hour. Requisite: course 1. Provides major concepts in Sociology and other social sciences, as well as students preparing for health sciences careers, with understanding of health-seeking behavior and interpersonal and organizational relationships that are involved in the receipt and delivery of health services. P/NP or letter grading.

171. Occupations and Professions. (4) Lecture, three hours; discussion, one hour. Description and analysis of representative occupations and professions, with emphasis on contemporary U.S. P/NP or letter grading.

172. Entrepreneurship. (4) Lecture, three hours; discussion, one hour. Description and analysis of entrepreneurship, with special reference to historical origins, ideology, international comparisons, and legal and illegal forms, public and private auspices. P/NP or letter grading.

173. Economy and Society. (4) Lecture, three hours; discussion, one hour. Sociological analysis of economic life, with emphasis on principal economic institutions of the U.S. P/NP or letter grading.

174. Sociology of Family. (4) (Same as Gender Studies M174.) Lecture, three hours; discussion, one hour. Requisites: course 1 or Gender Studies M10. Historical and contemporary structure and functions, including historical changes, family patterns, family as institution, and influence of contemporary society on family. P/NP or letter grading.

175. Sociology of Education. (5) (Same as Educa- tion M108.) Lecture, four hours; discussion, one hour. Study of how U.S. educational system both promotes economic opportunities and maintains socioeconomic inequalities: historical and theoretical perspec- tives on role of education in U.S. society; trends in educa- tional attainment; ways in which family back-
ground, class, race, and gender affect educational achievement and attainment; stratification between and within schools; effects of education on socioeconomic attainment, family, health, attitudes, and social participation; educational policies to improve school quality and address socioeconomic inequalities. Letter grading.

M176. Sociology of Mass Communication. (4) (Same as Communication M147.) Lecture, four hours; discussion, one hour (when scheduled). Studies in communication by major media. Media as a part of the social order. Media as a form of organization. Topics include history and organization of major media institutions, social forces that shape production of media content, news and entertainment, selected studies in media content, and effects of media on society. P/NP or letter grading.

M178. Sociology of Caribbean. (4) (Same as African American Studies M178.) Lecture, three hours; discussion, one hour. Limited to juniors/seniors. Historical sociology of Caribbean, with emphasis on colonialism and decolonization, development and underdevelopment, race-making institutions and evolution of race relations, nationalism and migration. P/NP or letter grading.

180A–180Z. Special Topics in Sociology. (4 each) Lecture, three hours; discussion, one hour. Limited to juniors/seniors. Study of selected topics of sociological interest. May be repeated for credit and may be applied as elective units toward Sociology major. P/NP or letter grading.

181A–181B. Sociology of Contemporary China. (4–4) Lecture, three hours; discussion, one hour. Designed for juniors/seniors. Each course may be taken independently for credit. P/NP or letter grading. 181A. Exploration of 20th-century changes in China, including end of dynasties, Republican era, Communist Revolution, and market reform. Topics include transformation in Chinese social structure and institutions and everyday practices. Survey of changes and analysis of the Chinese political system and global impact and current implications. 181B. Survey of changes in Chinese society from beginning of 20th century to present. Topics include social mobility, inequality, family and household, and population. Emphasis on changes post-Reform Era and in present. Focus on interaction of economic and political change plus family organization. Contrasts and similarities between China and West. China’s place in social sciences, and challenges due to social organization that originated from studying Western societies.


185. African Sociology. (4) Lecture, three hours; discussion, one hour. Analysis of major institutions in the U.S. in historical and international perspective, with emphasis on topics such as industrialization, work, state, politics, community, family, religion, and American culture. Theories of social change, conflict, and order applied to case of the U.S. P/NP or letter grading.

186. Latin American Societies. (4) Lecture, three hours; discussion, one hour. Latin American culture and social conflict in Latin America, with special attention to racial and class structures and dilemmas of economic and political development. Country and specific focus varies each semester. P/NP or letter grading.

188SA. Individual Studies for USIE Facilitators. (1) Tutorial, to be arranged. Enforced corequisite: Honors Collegium 101E. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor to discuss selected USIE seminar topic, conduct preparatory research, and begin preparation of syllabus. Individual contract with faculty mentor required. May not be repeated. Letter grading.


188SC. Individual Studies for USIE Facilitators. (2) Tutorial, to be arranged. Enforced requisite: course 188SB. Limited to junior/senior USIE facilitators. Individual study with faculty mentor while facilitating USIE 88S course. Individual contract with faculty mentor required. May not be repeated. Letter grading.

189. Advanced Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to undergraduate lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied as a maximum of 4 units. Individual honors contract required. Honors content noted on transcript. P/NP or letter grading.

189HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed and adjudged by college honors. In- dividual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

191A. Undergraduate Seminar: Self and Identity. (5) Seminar, three hours. Limited to junior/senior Sociology majors. Examination of historical, cultural, and interaction contexts shaping definition, enactment, and experience of self. Reading, discussion, and development of culminating project. Letter grading.


191D. Undergraduate Seminar: Sociology of Development. (5) Seminar, three hours. Limited to juniors/seniors. Taught in Spanish. Selected topics on development in Third World from global perspective. Topics include social mobility, inequality, family and household, and population. Emphasis on changes post- Reformation Era and in present. Focus on interaction of economic and political change plus family organization. Contrasts and similarities between Latin America and the West. Latin America’s place in social sciences, and challenges due to social organization that originated from studying Western societies.

191E. Undergraduate Seminar: Sociology of Health and Medicine. (5) Seminar, three hours. Limited to juniors/seniors. Taught in Spanish. Selected topics on health and medicine in Third World from global perspective. Topics include social mobilization, inequality, family and household, and population. Emphasis on changes post-Reformation Era and in present. Focus on interaction of economic and political change plus family organization. Contrasts and similarities between Latin America and the West. Latin America’s place in social sciences, and challenges due to social organization that originated from studying Western societies.

191F. Undergraduate Seminar: Sociology of Globalization. (5) Seminar, three hours. Limited to juniors/seniors. Great expansion of social relations across globe has occurred over last 50 years. What are causes and mechanisms of this process, how far has it transformed societies, and where will it go in future? Economic, cultural, political, and military aspects of globalization, with focus on extent to which global expansion of capitalism, nation-state system, and American imperialism reinforce or undercut each other, producing new lines of division and conflict across world. Reading, discussion, and development of culminating project. Letter grading.

191H. Honors Seminars: Sociology. (4) Seminar, three hours. In-depth introduction to process of producing scholarly sociological research for students who intend to write undergraduate thesis for department honors. Letter grading.

191I. Undergraduate Seminar: Health and Inequality. (3) Seminar, three hours. Taught in Spanish. Preparation for Mexican and Latin American society. During past century, social inequalities in health and survival were widening in the U.S. as in other developed societies. Broad overview of these trends and their causes. Reading, discussion, and development of culminating project. Letter grading.

191J. Undergraduate Seminar: Mexican Society. (5) Seminar, three hours. Selected topics on contempor- ary Mexican society and vital transformations it has undergone in recent years. Reading, discussion, and development of culminating project. Letter grading.

191K. Undergraduate Seminar: Cigarettes and Western Civilization—Sociological History of Smoking. (5) Seminar, three hours. Limited to juniors/ seniors. Historical sociology of tobacco and cigarette smoking to explore important themes in sociology, history, and culture. History of tobacco from its roots in Native American culture, its contribution to formation of European colonies in the New World, its cultural in- corporation in western Europe, its role in industrialization, and major health consequences, and its de- mise as legitimate soft drug for modern urban people. Letter grading.


191M. Undergraduate Seminar: Social Ecology. (5) Seminar, three hours. Limited to juniors/seniors. Fundamentals of sociological approach to social ecology, also known as human ecology. Study of adaptation of population to its environment. Topics include density, maintaining personal space, space and territoriality, and effects of environment on humans. Reading, discussion, and development of culminating project. Letter grading.

191N. Undergraduate Seminar: Urban and Suburban Sociology. (5) Seminar, three hours. Limited to juniors/seniors. History and present condition of cities and urban areas in American and global contexts such as New York and Los Angeles, and comparisons to London and Shanghai. Process of suburbanization as it began in early 19th century and still continues. Analysis of city politics, house and architectural styles, crime, urban terror, public housing and ghettos, segre- gation and integration of neighborhoods, questions of gentrification, environments, urbanization, and (especially art, museums, and movie and music industries), and environmentalism. Concurrently scheduled with course C297. Letter grading.

191NY. Undergraduate Seminar: Urban and Subur- ban Sociology in New York City. (5) Seminar, eight hours. Limited to students in summer UCLA Travel Study Program. Cutting-edge urban issues in country’s largest city, including New York’s attempt to play role of 9/11 World Trade Center, Robert Moses (New York’s master builder), urban economic development, green New York, transport systems, urban politics, house and architectural styles, museums, and historic skyscrapers, historic preservation, crime and police departments, ghet- tos, education, urban poor, public housing, and search for affordable housing. Offered in summer only. Letter grading.

191P. Undergraduate Seminar: Politics of Reproduction (S) Seminar, three hours. Limited to juniors/seniors. Social and human reproduction is global policy issue. Government efforts to influence reproduction are important feature of modern state; political intervention into private life, intimacy, and sexuality. Exploration of politics of reproduction—intersection between politics and life cycle or between public sphere and private lives—and coverage of broad range of interpersonal and institutional policies and procedures of reproduction from historical-comparative approach. Reading, discussion, and development of culminating project. Letter grading.

191Q. Undergraduate Seminar: Communication in Medical Care. (S) Seminar, three hours. Limited to juniors/seniors. Sociology dimensions of patient care in primary care context. Use of microsociological methods to examine main facets of American primary care medical visits, including detailed analysis of interactional conduct of those visits and development of microanalytical constructs into quantitative measures. Emphasis on direct contact with medical materials and development of observational and analytic skills. Reading, discussion, and development of culminating project. Letter grading.

191R. Undergraduate Seminar: Cultural Sociology. (S) Seminar, three hours. Limited to juniors/seniors. Introduction to junior/senior sociology: introduction to classic theoretical approaches and contemporary developments in study of social worlds dedicated to creating and handling cultural institutions such as literature, film/television, art, architecture, music, dance, and museums. Discussion of such issues as contemporary validity of distinction between high and popular/low culture, relationship of mainstream and subculture, how culture expresses and reinforces social inequality, organizational context of culture, and how people express and decipher meaning in cultural objects. Reading, discussion, and development of culminating project. Letter grading.

191S. Undergraduate Seminar: Sociology of Gender and Sexuality. (S) Seminar, three hours. Limited to juniors/seniors. Sexuality is important site for enactment of gender and sexual identity. Sexual preference and sexual behavior also form basis for social identity, repression, discrimination, and privilege, independent of gender. Social factors such as social class, ethnicity, generation, and networks shape our sexual practices and choice of partners. Reading and writing about variety of original sociological, historical, and anthropological texts and development of culminating project. Letter grading.

191T. Undergraduate Seminar: War and Society. (S) Seminar, three hours. Limited to juniors/seniors. Study of relationship between society’s military and its social organization with particular attention to shock-based civic militarism characteristic of the West. Topics include honor, discipline, bureaucracy, conscription, logistics, total war, guerilla war, terrorism, and counterinsurgency. Reading, discussion, and development of culminating project. Letter grading.

191V. Variable Topics Research Seminars: Sociolo- gy. (S) Seminar, three hours. Limited to juniors/seniors. Study of selected topics of sociological interest. Reading, discussion, and development of culminating project. Consult Schedule of Classes for topics and instructors. May be repeated for credit and may be applied as elective units toward Sociology major. Letter grading.

194. Research Group Seminars: Sociology. (2) Seminar, two hours. Designed for undergraduate students who are part of research group. Discussion of research and scholarly work in current literature in field. May be repeated for credit. P/NP grading.

M194DC. CAPP Washington, DC, Research Seminars. (4) Same as History M194DC and Political Science M194DC. Seminar, three hours. Limited to CAPP Quarter in Washington students and other students enrolled in UC Washington Center programs. Seminars for undergraduate students in Center for American Politics and Policy Program, Washington, DC. Focus on development and execution of original empirical research based on experiences from Washington, DC-based field placements.

205. Family and Social Change. (4) Lecture, three hours. Examination of sources of change in family and household organization, with major focus on relationships among economic institutions, family structure, and content of family life. Consideration of concepts, theories, and data about kinship, S/U or letter grading.

M206. Understanding Fertility: Theories and Meth- ods. (4) Same as Community Health Sciences M222. Lecture, three hours. Preparation: one formal or social demography course. Requisite: Biostatistics 100A. Application of demographic theories and methods to describe fertility trends and differentials and social and proximate determinants of fertility, with emphasis on understanding broad implications of fertility trends for ad- vanced students interested in population, demog- raphy of health, and social demography. Letter grading.


210C. Intermediate Statistical Methods III. (4) Lecture, three hours; discussion, one hour. Requisite: course 210B. Survey of advanced statistical methods used in social research, with focus on problems for which classical linear regression model is inappro- priate, including categorical data, structural equations, longitudinal data, incomplete and erroneous data, and complex samples. S/U or letter grading.

211A-211B. Comparative and Historical Methods. (4) Lecture, three hours. In Progress (211A) and S/U or letter (211B) grading. 211A. Strategies of Research and Conceptualization. Topics include relationship of theory and fact to social sciences, logic of compara- tive and historical analysis, and methodologies of comparative and historical analysis. Reading in- volves methodological examination of basic works in representative problem areas. 211B. Research Tech- niques. Requisite: course 211A. Topics include problem of evidence, quantitative and qualitative data, Techniques of data analysis, including use of manu- script census, content analysis, collective biography, secondary analysis.

212A. Quantitative Data Analysis. (4) Lecture, three hours; discussion, one hour. Enforced requisites: courses 210A, 210B. Course 212A is enforced requi- site to 212B. Analysis and interpretation of primarily nonexperimental quantitative data, with focus on sample survey and census data. Extensive practice at utilizing statistical methods encountered in previous courses in designing and implementing study of American Sociological Review or similar journal article. Topics include simple tabular analysis, correlation, log-linear analysis, ordinary least squares regression, instrumental variable estimation, diagnostic procedures, and methods for handling complex sample survey designs. In Progress grading (credit to be given only on completion of course 212B).

212B. Qualitative Data Analysis. (4) Lecture, three hours; discussion, one hour. Requisites: course 212A. Analysis and interpretation of primarily
nonexperimental quantitative data, with focus on sample survey and census data. Extensive practice at utilizing statistical methods encountered in previous courses, culminating in term paper in style of American Sociological Review or similar journal article. Topics include missing data; binomial, multinomial, and ordinal logistic regression; factor analysis and scale construction; methods for causal inference, including fixed effects and propensity score matching; and prediction models, including structure equations and multilevel models. S/U or letter grading.

212C. Study Design and Other Issues in Quantitative Data Analysis. (4) Lecture, three hours. Designed for graduate students who have had some exposure to statistics and quantitative methods. Introduction to study design, including experimental, longitudinal, cohort, time-series designs, contextual, and other designs. Discussion of suitability of various design classes for specific analytic goals, as well as their comparative strengths and weaknesses. S/U or letter grading.

M213A. Introduction to Demographic Methods. (4) (Same as Biostatistics M208, Community Health Sciences M208, and Economics M208.) Lecture, four hours. Preparation: one introductory statistics course. Introduction to methods of demographic analysis. Topics include population rates, standardization, decomposition of differences, life tables, survival analysis, cohort analysis, birth interval analysis, models of population growth, stable populations, population projection, and demographic data sources. Letter grading.

213B. Applied Event History Analysis. (4) Lecture, three hours. Preparation: exposure to binary response models. Requisites: courses 210A, 210B. Introduction to regression models in which outcome is time to event. Topics include logit models for discrete-time event history models; piecewise exponential hazards models; proportional hazards; nonproportional hazards; pooled data models; heterogeneity; multilevel survival models. S/U or letter grading.

M213C. Population Models and Dynamics. (4) (Formerly numbered 213C.) (Same as Community Health Sciences M209.) Lecture, three hours. Requisite: course M213A. Population models and their dynamics in population processes. How demographic models are used in estimation of population size, age structure, and associated dynamics. Computer simulations of demographic models used to gauge conclusions from demographic models. Estimation of demographic models in human population and broader relevance of demographic analysis to study of any population or system, including health and social systems. S/U or letter grading.

216A. Survey Research Design. (4) Lecture, three hours. Recommended requisite: course 210A. Past, present, and future of the survey as a research method. Survey design; survey errors; survey sampling; response rates; questionnaire design; reliability and validity of survey items; survey administration and management; ethics and costs. Letter grading.

216B. Survey Research Design. (4) Lecture, three hours. Enforced requisite: course 216A. Practical application of survey design skills. Students design and implement individual survey data collection projects and compare their survey design with their projects’ results and challenges. Letter grading.


217B-217C. Ethnographic Fieldwork. (4-4) Seminar, three hours. Recommended requisite: course 217A. Theories and techniques of ethnographic fieldwork. Kinds of problems amenable to ethnographic approaches, development of fieldwork, and ethical problems involved in such research. In Progress (217B) and letter (217C) grading.

220. Self and Society. (4) Lecture, three hours. Examination of social and cultural processes shaping definition and development of the self, embodied in institutional practices through which the self is constructed in everyday and institutional contexts, formation and transformation of self during life course, and construction of collective identity. Letter grading.

222. Foundations of Ethnomethodological, Phenomenological, and Analytic Sociologies. (4) Lecture, three hours. Designed for graduate students. Basic issues, methods, and topics of ethnomethodological, phenomenological, conversation-analytic, and analytic sociologies. These sociologies consider how we as world of everyday life, problem of rationality, rules/norms and tacit knowledge, problem of social order, speaking and discourse, constitutive practices, and problem structuring of first-person narratives and presentation by affiliated faculty in second part. S/U or letter grading.

223. Phenomenological and Interactionist Perspectives in Social and Cultural Analysis. (4) Lecture, three hours. Comparison of phenomenological and symbolic perspectives and examination of particular body of work or currently unresolved substantive issues. Emphasis on development of phenomenological and interactionist thought on topic of concern, with special concern for ambiguities and divergences both within and between two approaches. When relevant, attention to social and historical relations of phenomenology and interactionism of pragmatist, existentialist, and ordinary language philosophies. S/U or letter grading.

M225A. California Population Research Topical Seminar. (4) (Same as Community Health Sciences M204A.) Seminar, three hours. Examination of issues such as demography, health, aging, labor, and broad array of topics concerned with effects of economic, social, and political transition behavior both in U.S. and abroad. May be taken independently for credit. S/U grading.


227. Sociology of Knowledge. (4) Lecture, three hours. Designed for graduate students. Survey of theories and research concerning social determinants of systems of knowledge and role of intellectual and artistic elites in Western societies. S/U or letter grading.

228. Critical Issues in Macrosociology. (4) Lecture, three hours. Conceptual introduction to area of macrosociology in which exemplary works are read, studied for substance and methods, and criticized in seminar and in written papers. S/U or letter grading.

230A-230B. Comparative Ethnicity, Race, and Nationalism. (4-4) Seminar, three hours. Preparation for independent research in area of comparative ethnicity, race, and nationalism through close reading of key theoretical and empirical works. S/U or letter grading.

230C. Comparative Ethnicity, Race, and Nationalism. (4) Seminar, three hours. Introduction to comparative and historical sociology of race and ethnicity to demonstrate merits of double comparative approach to race, one that strives to be as comparative at level of theory (attending to relationship between race and other forms of social classification, including ethnicity and nationality) as it does at level of research. Exploration of cases in a wide variety of countries, including Australia, Brazil, Colombia, Dominican Republic, Haiti, Mexico, modern China, modern Japan, Nazi Germany, Nicaragua, Rwanda, South Africa, Sudan, and U.S. S/U or letter grading.

M231. Race, Class, and Gender: Constructing Black Womanhood and Black Manhood in America. (4) (Same as African American Studies M200G.) Seminar, four hours. Race, class, gender, and sexual identities and life chances in America, and individual experiences. They are not merely identities but structural locations that are often taken for granted and rarely contested, challenged, or contested. Many times one or more of these go unrecognized. Exploration of multiple intersecting ways these concepts shape collective individual lives and daily social interactions for African Americans. Examination of race, class, and gender inequalities as individual aspects of social life. How race, class, gender, and sexual identity shape societies and individual experiences in interaction with each other. How these inequalities shape and are shaped by social institutions, including cultural institutions, economy, and family, within context of experiences of black women and black men in contemporary U.S. Letter grading.

232. Class, Politics, and Society. (4) Lecture, four hours. Nature of class structure and how it affects relation of class structure to politics and political power. Issue of salience of class versus other identities such as age, gender, race, and nationalism. Conceptualization of contemporary “globalization” tendencies of capitalism. Letter grading.

233. Foundations of Political Sociology. (4) Lecture, three hours. Designed for graduate students. Survey of field of political sociology, oriented around critical themes in major theoretical traditions and contemporary exemplars. Special attention to competing perspectives of modern political sociology and relation of class structure to politics. S/U or letter grading.

234. Sociology of Development. (4) Seminar, three hours; discussion, one hour. Readings and discussion of theoretical, historical, and specific issues in sociology of development. Emphasis on development theory, developmental state, import substitution industrialization, export promotion industrialization, neoliberalism in Latin America, new approaches. S/U or letter grading.

M235A-235B. Race/Ethnicity in U.S. (4-4) Lecture, three hours. Survey of theoretical and empirical literature on race, ethnicity, and immigrant groups in U.S. to provide comparative analysis of racial/ethnic groups as well as provide detailed knowledge of particular racial/ethnic groups, to situate contemporary experiences within historical contexts, to understand structural integration into U.S. society (i.e., structural assimilation or socioeconomic mobility), and to examine theoretical approaches to understanding race and ethnicity in contemporary society. Preparation for field examination in race and ethnicity. S/U or letter grading.

236A-M236B-236C. International Migration. (4-4-4) Lecture, three hours. S/U or letter grading.

236A. (4) Lecture, three hours. Comprehensive overview of key current theoretical debates in study of international migration, with focus on exploration of possibilities of comparative (historical and cross-national) research program in field, linking North American, European, and other global experiences of immigration. S/U or letter grading.

M236B. (4) (Same as Geography M224.) Lecture, three hours. Further exploration of key current theoretical debates in study of international migration, with emphasis on exploring both theoretical debates of field and empirical data and case studies on which those debates hinge, to encourage students to undertake research in field. S/U or letter grading.

236C. (4) Lecture, three hours. Designed for students beginning or undertaking original research in field of international migration. Outside lectures, oral presentations of student projects, circulation of completed or draft student papers. S/U or letter grading.

237. Seminar: Theory and Research in Comparative Social Analysis. (2) Seminar, two hours. Designed for graduate students. Emphasis on one issue of particular importance for comparative analysis of capitalism and socialism, North America and Western Europe, and developing countries. Discussion of directions for future feminist sociology. S/U grading.

M238. Feminist Theory. (4) (Same as Gender Studies M238.) Seminar, three hours. Designed for graduate students. Analysis of current feminist theory relevant to sociologists. Exploration of critiques of second wave feminism by working class feminists and/or feminists of color, feminist scholars from other countries, and recent “antifeminist” feminists. Discussion of directions for future feminist sociology. Letter grading.

239A-239B. Social Stratification, Mobility, and Inequality. (4) Lecture, three hours. Requisites: courses 210A, 210B. Course 239A is enforced requisite to 239B. Introduction to literature on social stratification, mobility, and inequality in U.S. and...
abroad, with focus on concepts, data, methods, and facts about occupational and class structure, intergenerational transmission of socioeconomic status; effects of family, school, and labor market on socioeconomic achievement, careers, and inequality; earnings, income, and wealth distribution; poverty; social mobility; socioeconomic factors and marriage; gender and ethnic stratification; and health disparities. In Progress (239A) and letter (239B) grading.

240. Sociology of Education. (4) Lecture, three hours. Overview of social scientific study of education, with special focus on sociology (along with history and philosophy). Examination of contemporary sociology of education and educational administration at two levels: examination of how scholars have studied schools’ role in maintaining or altering stratification and inequality by looking at quantitative and qualitative approaches to race, class, and gender; and examination of how focus on stratification can exist alongside, provide foundation for, or obfuscate other longstanding commitments in study of schooling including macro, micro, and multidisciplinary approaches to gender, race, class, and cultural capitalism, and maintenance of particular economic, racial, and sexual order. Examination of classical philosophical texts and recent sociological and historical work on how broader structures of government, culture, and social institutions affect what schools do and what actors believe they are supposed to do. S/U or letter grading.

241. Theories of Gender in Society. (4) Lecture, one hour; discussion, two hours. Gender stratification in society and sociology; extent of gender diversity in human societies past and present; why gender is absent in classical macrosociology; can masculinist paradigms make space for gender or does feminized sociology necessitate fresh approach? S/U or letter grading.

244A-244B-244C. Conversation Analysis I, II, III. (6-8) Lecture, three hours; discussion, two hours. S/U or letter grading. Introduction to some structures basic to organization of conversational interaction: organization of repair, and practices of word selection and reference to persons, places, time, and action. 244C. Requisites: courses 244A, 244B. Continuation of introduction to some structures basic to organization of conversational interaction: practices of action formation, storytelling organization, and overall structural organization of single conversation.

245. Cultural Sociology: Classical and Contemporary Approaches. (4) Lecture, one hour; discussion, two hours. Exploration of classical approaches to cultural dimension Weberian, Durkheimian, Parsonian, and critical—and living traditions they have spawned. Examination of contemporary efforts at constructing new cultural sociology. Theoretical focus, with consideration of case studies. S/U or letter grading.

246. Sociology of Culture. (4) Seminar, three hours. Theoretical and methodological issues in structural approaches to culture. Perspectives include cultural economics, political economy, and production of culture. S/U or letter grading.

247. Sociology of Emotions. (4) Lecture, two hours; discussion, one hour. Designed for graduate students. Sociological theories of emotional expression; experiential approaches to emotions: motivational, cognitive, physiological, and behavioral; repression, social oppression, and emotions; creativity and expressed affect; thought, sensations, and emotions; specific emotional experiences in emotional expression; measurement of emotions. Letter grading.

248. Selected Topics in Culture and Society. (4) Seminar, three hours. Designed for graduate students. Seminar on selected topics on culture and society. Consult Schedule of Classes for topics and instructors. May be repeated for credit. S/U or letter grading.

249. Culture, Brain, and Development. (4) (Same as Psychology M247.) Seminar, three hours. General introduction to interactions of culture, brain, and development, including both social and cognitive development. Special attention to effects of social change on culture and human development. S/U or letter grading.

250. Sociology of Health. (4) Seminar, three hours. Exploration of literature of human health as product of society. Macro focus and micro focus used to examine relationship of various processes of nature of macrosocieties of national society (culture, economy, politics) while maintaining awareness of micro pathways that link these wider influences to personal experience (mind, body, emotion). Main focus on modern industrial societies and organized around many leading issues in sociology of health. S/U or letter grading.

251. Social Movements. (4) Seminar, three hours. In-depth consideration of debates and empirical research on social movements, collective action, and contentious politics, examining case studies, comparative analyses, and large-N investigations, with focus on developing student expertise in understanding social movement research and conceptualizing research projects. S/U or letter grading.

M252. Selected Topics in Sociology of Gender. (4) (Same as Gender Studies M252.) Lecture, two hours; discussion, two hours. Designed for graduate students. Seminar on selected topics in sociology of gender. May be repeated for credit. Letter grading.

253. Politics of Reproduction, Gender, and Family. (4) Seminar, three hours. Human reproduction and its regulation have long been a contentious politics around world and remain topical today. Reproduction refers both to biological and social reproduction; their interdependence shapes policies and practices pertaining to them. We develop fertility behavior call attention to one important feature of modern states: political intervention into private life, intimacy, and sexuality. Politics of reproduction refers to intersection between politics and life cycle, or between public sphere and private lives. Expansion of state into bodies and lives of citizens has blurred lines between public and private interests. Exploration of diverse aspects of reproduction, their gendering, and their impact on changing family forms to encourage students to think comparatively and historically about these issues in different contexts and cultures. Letter grading.

254. Human Capital, Social Capital, and Cultural Capital. (4) Lecture, three hours. Designed for graduate students. Intellectual history of these concepts, points of difference among these concepts, current exemplars of research that utilize these concepts, and critical reflection on research traditions. Letter grading.

M255. Cross-Cultural Perspectives on Gender. (4) (Same as Gender Studies M255.) Seminar, three hours. How does gender manifest itself in lives of different groups of women in U.S. and abroad? Are universal analytical categories or unified feminist movements possible or is gender too different cross-culturally? S/U or letter grading.


257. Demography of Marriage Formation and Dissolution. (4) Discussion, three hours. Requisite: course 210A. Extensive and intensive critical examination of major approaches to analysis of marriage formation and dissolution, with focus primarily on demographic literature. S/U or letter grading.


278. Sociology of Latin America. (4) Lecture, one hour; discussion, two hours. Designed for graduate students. Selected topics in sociological study of Latin America. Possible topics include social movements, race and ethnicity, stratification, and social development. S/U or letter grading.

M280. Trafficking, Gender, and Human Rights. (4) (Same as Law M577.) Seminar, four hours. Review and critical assessment of diverse literature on international traffic of persons, with emphasis on significance of sociological, legal, and gender aspects of trafficking. Primary focus on trafficking for sex work and blurred lines between discourse on commercial sex trade and trafficking. Additional issues include role of political and economic transition, militarization, health implications of trafficking, trafficking for nonsexual labor, and role of advocacy. S/U or letter grading.

281. Selected Problems in Mathematical Sociol- ogy. (4) Lecture, three hours. Exploration of some mathematical models of sociological processes. Possible topics include models of small groups, social mobility, kinship relations, organizations, social interaction. S/U or letter grading.

282. Sociology of Medicine. (4) Seminar, three hours. Review of major concepts and issues in sociology of medicine. Topics include medicine, culture, and capitalism and profession and power. Issues include managed care, sick role and social control, interactionism and negotiation of sickness, sickness and self, debates over medicalization and demedicalization. Designed for students interested in field of medicine and health and medicine and specifically for themes traditionally included under medical sociology/sociology of medicine. S/U or letter grading.
283. Communication in Medical Care. (4) Seminar, three hours. Review and development of empirical knowledge about doctor-patient relationship. Analysis of nature and dynamics of routine office visits, with focus on nature and role of norms in regulating doctor-patient conduct, role of expertise and power in doctor-patient relationship, and methodological questions concerning how doctor-patient relationship can be analyzed. S/U or letter grading.


28A-28SZ. Special Topics in Sociology. (4 each) Seminar, three hours. Designed for graduate students. Seminar on selected current topics of sociological interest. Consult Schedule of Classes for topics and instructors. May be repeated for credit. S/U or letter grading.

287. Topics in Chinese Society. (4) Seminar, three hours. Preparation: at least two upper-division courses on China in any social sciences discipline. Introduction to current research questions in Chinese sociology, as well as major themes in study of Chinese society, both historical and contemporary, including demographic, economic, political, and social change before and after 1949. S/U or letter grading.

289A-289B. Practicum in Conversation Analysis. (2–4) Requisites: courses 244A, 244B. S/U grading.

289A. Data Analysis, Laboratory, two hours. Practice in analysis of conversational data. May be repeated for credit. 289B. Developing Work in Progress. Seminar, three hours. Opportunity to advance research projects in progress and to develop skills of constructive criticism in discussing work of others.

295. Working Group in Sociology, (1 to 4) Discussion, two hours. Variable topics, including sociology of gender; ethnography; social networks; race, ethnicity, immigration; and social demography and stratification. Advanced study and analysis of current topics in specialized areas of sociology. Discussion of current research and literature in research specialty of faculty member teaching course. May be repeated for credit. S/U grading.

C297. Urban and Suburban Sociology. (5) Seminar, three hours. History and present condition of cities and suburbs in America, with stress on global cities such as New York and Los Angeles, and comparisons to London and Shanghai. Process of suburbanization as it began in early 19th century and still continues. Analysis of city politics, house and architectural styles, crime, urban terror, public housing and gentrification, and integration of neighborhoods, question of gentrification, immigration, urban culture (especially art, music, and movie and music industries), and environmentalism. Concurrently scheduled with course C191N. Letter grading.

298. Workshop in Culture and Society. (4) Seminar, two hours every other week. Interdisciplinary workshop for graduate students and faculty pursuing theory and research in topics related to interplay of culture and society, whether social, literary, or philosophical in nature. S/U grading.

375. Teaching Apprentice Practicum, (1 to 4) Seminar, to be arranged. Preparation: apprentice personnel employment as teaching assistant, associate, or fellow. Teaching apprenticeship under active guidance and supervision of regular faculty member responsible for curriculum and instruction at UCLA. May be repeated for credit. S/U grading.


495. Supervised Teaching of Sociology, (2) Seminar, two hours. Preparation: appointment as teaching assistant in Sociology Department. Special course for teaching assistants designed to deal with problems and techniques of teaching introductory sociology. S/U grading.

SPANISH AND PORTUGUESE

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Scope and Objectives

The Department of Spanish and Portuguese is dedicated to the study and teaching of the languages, literatures, and cultures of the Hispanic heritage in all areas of the world, particularly on the continents of Europe and America. It maintains a strong commitment to the value of original research and professional instruction at all levels of its activities.

Whether studying for the BA, MA, or PhD degree, students are given careful guidance in the choice of courses and in the preparation of a study program. The richness of Hispanic culture is amply represented in the extensive range of courses in language, linguistics, and literature. Although the literatures of Spain, Portugal, Brazil, and Spanish America predominate, courses are also offered in Chicano literature. The breadth of courses offered by the department allows undergraduate students to pursue many possible interests and enables graduate students to concentrate in depth in several areas of specialization.

Department courses are primarily designed to serve the five BA programs: BA in Spanish, BA in Spanish and Community Culture, BA in Spanish and Linguistics, BA in Spanish and Portuguese, and BA in Portuguese and Brazilian Studies; as well as to prepare students for its three graduate programs: MA in Spanish, MA in Portuguese, and PhD in Hispanic Languages and Literatures. The courses are also functionally supportive of such interdepartmental programs as the BA, MA, and PhD programs in Chicano and Chicano Studies, BA and MA programs in Latin American Studies, and MA and PhD programs in Comparative Literature.

Undergraduate Study

Two of the majors in the Spanish and Portuguese Department are designated capstone majors: Spanish, and Spanish and Community Culture.

For the Spanish major, seniors complete a capstone seminar that provides unique opportunity to work closely with a faculty member on a focused topic of research. Through their capstone work students are expected to demonstrate mastery of the Spanish language, along with specific skills and expertise acquired in earlier coursework. Additionally, students acquire a working knowledge of scholarly discourse relative to a specialized topic, conceive and execute an associated project, and engage with a community of scholars, present their work to peers and helping to further peers’ work through discussion and critique.

For the Spanish and Community Culture major, undergraduate students participate in community-based experiential learning courses coupled with elective and adjunct courses. Reflective journals, final projects, and in-class presentations are required. Through their capstone work, students should have mastery of the Spanish language, ability to conduct and interpret research to determine the needs of specific communities, critical understanding and ability to apply theories within a service context, sensitivity to diversity and cultural differ-
ences, and ability to perform scholarly presentations that tie current issues to research and theory.

### Language Acquisition Courses

Spanish 1 through 3 use Unidos. The method is inductive. Selected examples are given to enable students to inductively grasp the rules and develop their own grammar. This enables students to use language effectively and creatively. The courses are taught entirely in Spanish—students simultaneously learn to understand, speak, read, and write Spanish.

Students with one or more years of high school Spanish who plan to enroll in Spanish 1 through 25 should take the departmental online placement examination. Consult the Schedule of Classes or the department office for more information.

No credit is allowed for completing a less advanced course after successful completion of a more advanced course in Spanish and Portuguese grammar and/or composition.

### Spanish BA

#### Capstone Major

**Learning Outcomes**

The Spanish major has the following learning outcomes:

- Demonstrated written and oral mastery of the Spanish language
- Demonstrated specific skills and expertise, including research, analysis, and writing
- Identification and analysis of appropriate primary sources
- Conception and execution of a project that identifies and engages with a specialized topic
- Working knowledge of scholarly discourse relative to a specialized topic
- Engagement with peers through presentation, discussion, and critique of student work

**Preparation for the Major**

Required: Spanish 25 or 27, 42 or 44. Each course must be passed with an average grade of C or better prior to beginning upper-division work in the major.

**Transfer Students**

Transfer applicants to the Spanish major with 90 or more units must complete the following introductory courses prior to admission to UCLA: two years of Spanish, one Spanish civilization course, and one Spanish or Spanish American civilization course. Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

**The Major**

Required: (1) Spanish 100A or 100B, and 119 or 120; (2) four elective Spanish literature, culture, linguistics, or media studies courses selected from 130, 135, 140, 150, 155C, 160, 170, 175, 195; (3) two interdisciplinary studies courses selected from Chicana and Chicano Studies 100SL, CM106, M119, 120, M121, M122, 131, M144, 149, 181, Sociology M155; (4) two capstone community-based and experiential learning courses (8 to 10 units) selected from Chicana and Chicano Studies 100SL, Spanish M165SL, M172SL. A minimum of 46 units applied toward the major requirements must be in addition to units applied toward major or minor requirements in another department or program.

### Spanish and Community and Culture BA

#### Capstone Major

**Learning Outcomes**

The Spanish and Community and Culture major has the following learning outcomes:

- Demonstrated written and conversational mastery of the Spanish language
- Conduct and interpret research to determine the needs of specific communities
- Demonstrated critical understanding of, and ability to apply, theories within a service context
- Demonstrated sensitivity to diversity and cultural differences
- Performance of scholarly presentations that tie current issues to research and theory
- Articulation of the value of civic engagement

**Preparation for the Major**

Required: Spanish 25 (or 27), 42, 44. Each course must be passed with an average grade of C or better prior to beginning upper-division work in the major.

**Transfer Students**

Transfer applicants to the Spanish and Community and Culture major with 90 or more units must complete the following introductory courses prior to admission to UCLA: two years of Spanish, one Spanish civilization course, and one Spanish or Spanish American civilization course. Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

**The Major**

Required: (1) Spanish 100A, 100B, Linguistics 103, 120A, 120B, (2) one course from Linguistics 160 or 165A or 165B, and (3) two upper-division Spanish electives, two of which must be from Spanish 160.

### Spanish and Portuguese BA

#### Learning Outcomes

The Spanish and Portuguese major has the following learning outcomes:

- Demonstrated technical mastery of the Spanish language, including pronunciation (phonetics and phonology), history (historical linguistics), and structure (syntax)
- Demonstration of how to do basic spoken language research in Spanish linguistics, emphasizing Latin American Spanish and Chicano Spanish or Los Angeles vernacular
- Identification and analysis of appropriate primary linguistic sources within the generative framework
- Working knowledge of scholarly discourse in a specialized Spanish linguistics topic (phonology, syntax, and historical linguistics)
- Conception and execution of a project that identifies and engages with a specialized Spanish linguistics topic as a result of the practical part of the courses on phonetics and phonology and on syntax

### Preparation for the Major

Required: Spanish 25 or 27, M35 (or Linguistics 20), 42 or 44. Each course must be passed with an average grade of C or better prior to beginning upper-division work in the major.

### Transfer Students

Transfer applicants to the Spanish and Linguistics major with 90 or more units must complete the following introductory courses prior to admission to UCLA: two years of Spanish, one introduction to linguistics course, and one Spanish or Spanish American civilization course. Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

**The Major**

Required: (1) Spanish 100A, 100B, 103, 120A, 120B, (2) one course from Linguistics 160 or 165A or 165B, and (3) four upper-division Spanish electives, two of which must be from Spanish 160.
Transfer Students

Transfer applicants to the Spanish and Portuguese major with 90 or more units must complete the following introductory courses prior to admission to UCLA: two years of Spanish, one year of Portuguese, one Spanish civilization course or one Spanish American civilization course, and one Brazilian culture course.

Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

The Major

Required: (1) One course from Spanish 100A or 100B and one course from Portuguese 100A or 100B, (2) Spanish 119, 120, Portuguese 130A or 130B, (3) six 4- or 5-unit upper-division elective courses, two of which must be in Spanish and three of which must be from the Portuguese offerings, including those taught in English. Only upper-division courses taught in the target language may be applied toward the major, except the Portuguese courses taught in English.

Portuguese and Brazilian Studies BA

Learning Outcomes

The Portuguese and Brazilian Studies major has the following learning outcomes:

• Demonstrated oral, aural, and written mastery of the Portuguese language
• Demonstrated specific skills and expertise, including research, analysis, and writing
• Conception and execution of research projects that identify and engage with a specialized topic
• Identification and analysis of appropriate primary sources
• Working knowledge of scholarly discourse relative to a specialized topic
• Engagement with peers through presentation, discussion, and critique of student work

Preparation for the Major

Required: Portuguese 25 or 26 or 27 (27 recommended), and 408 or 46, or equivalent.

Transfer Students

Transfer applicants to the Portuguese major with 90 or more units must complete the following introductory courses prior to admission to UCLA: one year of Portuguese, one nature of language course, one Portuguese civilization course or one Brazilian civilization course, and one Brazilian culture course.

Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

The Major

Required: Ten upper-division courses (45 units minimum), including Portuguese 100A or 100B, 130A or 130B, and seven elective courses selected from 100A through 199. Out of the seven elective courses, two courses from outside the department that focus on Brazil, Portugal, or Lusophone Africa may be applied toward the major with approval of the undergraduate adviser. A minimum of five out of the seven elective courses must be taken in Portuguese.

Double Majors

Through judicious use of electives, students may find it possible to secure the BA degree with two complete majors (e.g., Portuguese/Spanish, Portuguese/History, Portuguese/Sociology, etc.). Interested students should consult with the undergraduate adviser in Portuguese as early as possible in their BA program.

Study in a Portuguese-Speaking Country

Students are encouraged to spend up to one year in a Portuguese-speaking country to study in a university or conduct research. Appropriate credit may be granted in accordance with the individual program, arranged in consultation with the undergraduate faculty adviser in Portuguese. Proposals must be submitted in advance in writing and must be approved by the department.

Honors Program

The departmental honors program is open to majors who have completed a minimum of six upper-division major courses with a 3.7 grade-point average or better in those six courses. Eligibility is verified by the departmental counselor. On the basis of their coursework and special interests, students then consult with a faculty member in that field and formulate a research project that they pursue under the faculty member’s guidance through Portuguese 198A-198B or Spanish 198A-198B.

Portuguese 198A and Spanish 198A are 4-unit courses in which students research and prepare a draft of a thesis on a selected topic. Portuguese 198A and Spanish 198A are 2-unit courses in which students complete the final thesis draft of approximately 25 to 30 pages. Approval of the honors thesis by the faculty mentor is the final requirement for departmental honors. Portuguese 198A-198B and Spanish 198A-1988 may not be applied toward the majors.

Mexican Studies Minor

The Mexican Studies minor allows students with an interest in Mexico to augment their major programs with courses that expose them to the history, literature, and culture of Mexico. Given Southern California’s proximity to Mexico, the demographics of Los Angeles, and the shared history of Mexico and the Southwest, the minor is a natural complement to many majors.

To enter the minor, students must have an overall grade-point average of 2.0 or better and must complete or show proficiency equivalent to two years of college-level Spanish. A petition to declare the minor should be filed with the undergraduate counselor in 5314 Rolfe Hall.

Required Lower-Division Courses (8 to 9 units): Spanish 25 or 27, and one course from History 8A, 8B, 8C, or Spanish 44.

Required Upper-Division Courses (20 to 22 units): Three Mexican culture and literature courses selected from Spanish 135 through 175 in consultation with the undergraduate adviser and two courses from Anthropology 114P, Chicana and Chicano Studies M102, M108A, 120, M125, M132, 142, 172, 184, Ethnomusicology M108A, History 157B, 160B.

By petition and after consultation with the undergraduate adviser, one 4-unit 197 or 199 course may be applied toward the minor.

A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor.

Each minor course must be taken for a letter grade, and students must have an overall grade-point average of 2.0 or better in the minor. Successful completion of the minor is indicated on the transcript and diploma.

Portuguese and Brazilian Studies Minor

To enter the Portuguese and Brazilian Studies minor, students must have an overall grade-point average of 2.0 or better and must complete Portuguese 27 or equivalent.

Required Lower-Division Courses (9 units): Portuguese 25 or 26 or 27 (27 recommended), and 408 or 46.

Required Upper-Division Courses (20 units): Three courses selected from Portuguese 100A through 199, and two upper-division courses on a Brazilian topic. Only one 4-unit Portuguese 197 or 199 course may be applied toward the minor. Courses may be taken in Portuguese or English but must be clearly related to an aspect of Brazilian studies. By petition, up to two upper-division courses on Portugal or Brazil may be taken in other departments and applied toward the minor.

A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor.

Each minor course must be taken for a letter grade, and students must have an overall grade-point average of 2.0 or better in the minor. Successful completion of the minor is indicated on the transcript and diploma.

Spanish Minor

To enter the Spanish minor, students must have an overall grade-point average of 2.0 or better and must complete or show proficiency equivalent to two years of college-level Spanish.

Required Lower-Division Courses (9 units): Spanish 25 or 27, and 42 or 44.

Required Upper-Division Courses (20 to 22 units): Spanish 119 or 120 and four Spanish literature, culture, linguistics, service learning, or media studies courses.

By petition and after consultation with the undergraduate adviser, one 4-unit 197 or 199 course may be applied toward the minor.

A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor.
Each minor course must be taken for a letter grade, and students must have an overall grade-point average of 2.0 or better in the minor. Successful completion of the minor is indicated on the transcript and diploma.

Spanish Linguistics Minor
To enter the Spanish Linguistics minor, students must have an overall grade-point average of 2.0 or better and must complete or show proficiency equivalent to two years of college-level Spanish.

Required Lower-Division Courses (9 units): Spanish 25 or 27, and M35.

Required Upper-Division Courses (20 to 21 units): Spanish 100A, 100B, and three upper-division Spanish electives, two of which must be from Spanish 160.

By petition and after consultation with the undergraduate adviser, one 4-unit 197 or 199 course may be applied toward the minor.

A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor.

Each minor course must be taken for a letter grade, and students must have an overall grade-point average of 2.0 or better in the minor. Successful completion of the minor is indicated on the transcript and diploma.

Graduate Study
Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Division website.

Graduate Degrees
The Department of Spanish and Portuguese offers the Master of Arts (MA) degree in Spanish, Master of Arts (N/A) degree in Portuguese, and Candidate in Philosophy (ChPh) and Doctor of Philosophy (Ph.D) degrees in Hispanic Languages and Literatures.

Indigenous Languages of the Americas

Lower-Division Courses
1. Elementary Zapotec. (4)
   Lecture, five hours. Introduction to Zapotec language of Tiacolula Valley of Oaxaca. P/NP or letter grading.
2. Elementary Zapotec. (4)
   Lecture, five hours. Enforced requisite: course 1. Introduction to Zapotec language of Tiacolula Valley of Oaxaca. P/NP or letter grading.
3. Elementary Zapotec. (4)

M35A-M35B, M35C. Intermediate Zapotec. (4-4-4)
(Same as Chicana and Chicano Studies M35A-M35B-M35C and International and Area Studies M35A-M35B-M35C.) Lecture, four hours. Enforced requisite: courses M35A, M35B, M35C. Course M35A is enforced requisite to M35B, which is enforced requisite to M35C. Taught primarily in Nahuatl. Examination of Nahuatl (Aztec) language of central Mexico at intermediate level. Coverage of Nahuatl grammar, with equal emphasis on reading, writing, conversation, and comprehension. P/NP or letter grading.

18A-18B-18C, Elementary Quechua. (4-4-4) Lecture, five hours. Course 18A is enforced requisite to 18B, which is enforced requisite to 18C. Language of Incas and present-day Quechua language, as spoken in Andean South America. Offered in summer only. Letter grading.

18A-18B-18C. Elementary Quechua. (4-4-4) Lecture, five hours. Enforced requisite to 18B. Taught in Quechua. P/NP or letter grading.

19. Fiat Lux Freshman Seminars. (1)
   Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

89. Honors Seminars. (1)
   Seminar, three hours. Limited to 20 students. Designed as adjunct to lower-division lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

99HC. Honors Contracts. (1)
   Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to lower-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. P/NP or letter grading.

101. Student Research Program. (1 to 2)
   Tutorial (supervised research or other scholarly work), three hours per week per unit. Entry-level research for lower-division students under guidance of faculty mentor. Students must be in good academic standing and enrolled in minimum of 12 units (excluding this course). Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP grading.

Upper-Division Courses
M115A-M115B-M115C. Advanced Nahuatl. (4-4-4)
(Same as Chicana and Chicano Studies M115A-M115B-M115C and International and Area Studies M115A-M115B-M115C.) Lecture, four hours. Requisites: courses M115A, M115B, M115C. Course M115A is requisite to M115B, which is requisite to M115C. Taught primarily in Nahuatl. Examination of Nahuatl (Aztec) language of central Mexico at intermediate level. Coverage of Nahuatl grammar, with equal emphasis on reading, writing, conversation, and comprehension. P/NP or letter grading.

25. Advanced Portuguese. (4)
   Lecture, three hours; laboratory, two hours. Taught in Portuguese. Laboratory is online. Introductory Portuguese language course that is proficiency-oriented, communi- cative, and task-based to help develop communicative competence in four skill areas (listening, speaking, reading, and writing), as well as cultural competence. P/NP or letter grading.

26. Language and Popular Culture. (4)
   Lecture, three hours. Required. Honors content noted on transcript. P/NP or letter grading.

26A. Language and Popular Culture: Summer Course. (4)
   Lecture, 20 hours. Enforced requisite: course 3 or 11B. Advanced Portuguese course with cultural activities, field trips, and luncheons. Offered in summer only. P/NP or letter grading.

91A-11A-11B. Intensive Portuguese. (5-5) Lecture, four hours; laboratory, two hours. Taught in Portuguese. Laboratory is online. Accelerated course designed only for students with proficiency in another Romance language. P/NP or letter grading.

91A-11B-11C. Advanced Quechua. (4-4-4) Lecture, five hours. Enforced requisite: course 18B. Course 119A is requisite to 119B, which is requisite to 119C. Readings in Quechua. Vocabulary emphasizing questions of Brazilian cultural identity. Letter grading.

19. Fiat Lux Freshman Seminars. (1)
   Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

25. Advanced Portuguese. (4)
   Lecture, three hours; laboratory, two hours. Taught in Portuguese. Laboratory is online. Introductory Portuguese language and culture course that is proficiency-oriented, communi- cative, and task-based to help develop communicative competence in four skill areas (listening, speaking, reading, and writing), as well as cultural competence. P/NP or letter grading.

26. Language and Popular Culture. (4)
   Lecture, three hours. Required. Honors content noted on transcript. P/NP or letter grading.
questions of Brazilian cultural identity; includes cultural activities, field trips, and luncheons. Offered in summer only. P/NP or letter grading.

27. Advanced Composition and Style. (4) Lecture, three hours. Requisite: course 3 or 11B. Practice in writing Portuguese with appropriate vocabulary, syntactical structures, and stylistic patterns. P/NP or letter grading.

27A. Advanced Composition and Style: Summer Course. (4) Lecture, 20 hours. Enforced requisite: course 27. Practice in writing Portuguese with appropriate vocabulary, syntactical structures, and stylistic patterns. Includes cultural activities, field trips, and luncheons. Offered in summer only. P/NP or letter grading.

M35. Spanish, Portuguese, and Nature of Language. (5) Same as Spanish M35.) Lecture, three hours; discussion, one hour. Introduction to language study within context of Romance languages, focusing on Spanish and Portuguese. Nature of language: structure, diversity, evolution, social and cultural settings, literary uses. Study of language and its relation to other areas of human knowledge. P/NP or letter grading.


46. Brazil and Portuguese-Speaking World. (5) Lecture, four hours; one, two, or three hours (synchronous school credit). Taught in English. Topical analysis of cultural history of Brazil in context of Portuguese-speaking world, with emphasis on comparative, trans-Atlantic relations, social development, and artistic manifestations. P/NP or letter grading.

89. Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to lower-division lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

89HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to lower-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for credit with topic change. P/NP or letter grading.

142B. Brazilian and Iberian in Comparative Perspective. (4) Lecture, four hours. Taught in English. Study of social and cultural links between Portugal and Brazil, with emphasis on issues of migration, dialogue, and contention in historical context. May be repeated for credit with topic change. P/NP or letter grading.

142C. Travel Narratives, Testimony, Autobiography. (4) Lecture, four hours. Taught in English. Exploration of travel, memory, and narrative in Portuguese-speaking world. Primary and secondary texts depict issues of displacement, cultural contact, and assimilation. Overview of connections among Portuguese-speaking cultures. May be repeated for credit with topic change. P/NP or letter grading.

143A. Colony, Intellectuals, and History. (4) Lecture, four hours. Enforced requisite: course 27. Investigation of way that Brazilian maritime expansion from 15th to early 19th century was represented and interpreted in writings from across empire. May be repeated for credit with topic change. P/NP or letter grading.

143B. Transatlantic Literature in Portuguese. (4) Lecture, four hours. Enforced requisite: course 27. Exploration of connections between Portugal and Portuguese-speaking world in literature and arts. May be repeated for credit with topic change. P/NP or letter grading.

143C. Modernism, Modernity, and Identity. (4) Lecture, four hours. Requisite: course 25 or 26 or 27. Examination of concepts and practice of modernism in Portuguese-speaking world, with primary focus on 1920s. Reading emphasis on sociohistorical context, relations with European avant-garde, modernist poetics and polemics, and search for national identity as expressed in period's poetry and prose. May be repeated for credit with topic change. P/NP or letter grading.

143D. Contemporary Literature in Portuguese. (4) Lecture, four hours. Requisite: course 25 or 26 or 27. Exploration of connections between literatures of Angola, Brazil, and Portugal against background of globalization and Internet. May be repeated for credit with topic change. P/NP or letter grading.

175. Topics in Creative Writing and Literary Translation. (4) Seminar, three hours. Requisite: course 25 or 26 or 27. Exploration of art of translation and creative writing. Guest speakers or instructors include professional literary translators, poets, novelists, playwrights, and filmmakers who discuss theory, methodology, and practice of their art. May be repeated for credit with topic change. P/NP or letter grading.

187FL. Special Studies: Readings in Portuguese. (2) Seminar, two hours. Requisite: course 27. Students read and discuss relevant material under the guidance of a faculty member and student. Assigned reading and tangible evidence of mastery of subject matter required. May be repeated for credit with topic change. P/NP or letter grading.

198A-198B. Senior Honors Research in Portuguese I, II. (4–2) Tutorial, to be arranged. Preparation: completion of minimum of six upper-division major core courses with 3.7 grade-point average. Course 198A is enforced requisite to 198B. Limited to juniors/seniors. Development and completion of honors thesis under direction of faculty member. May be repeated toward major requirements. Individual contract required. Letter grading.

199. Directed Research in Portuguese. (2 to 4) Tutorial, to be arranged. Requisite: course 27. Limited to juniors/seniors. Supervised individual research under guidance of faculty mentor. Culminating paper required. Eight units of courses 199 and/or 198 may be applied toward major requirements. Individual contract required. P/NP or letter grading.

Graduate Courses

M200. Research Resources. (4) (Same as Spanish M200.) Lecture, three hours. Identification and use of research resources for graduate students. P/NP or letter grading.

M201A-M201B. Literary Theory and Criticism. (4–4) (Same as Spanish M201A-M201B.) Lecture, three hours. Definition, discussion, and application of major currents of contemporary literary theory and criticism. Letter grading.


M204A-204B. Generative Grammar. (4–4) Lecture, three hours. Course 204A is requisite to 204B. Generative approach to the Portuguese language, with some consideration of bearing of syntax, semantics, and phonology on style, metaphor, and meter.

M205A-M205B. Development of Portuguese and Spanish Languages. (5) (Same as Spanish M205A-M205B.) Lecture, three hours. Study of historical development of Portuguese and Spanish languages from their origin in spoken Latin.


Spanish Lower-Division Courses

1. Elementary Spanish. (4) Lecture, three hours; laboratory, two hours. Taught in Spanish. Laboratory is online. Introductory Spanish language and culture course that is proficiency-oriented, communicative, and task-based to help develop communicative competence in four skill areas (listening, speaking, reading, and writing), as well as cultural competence. P/NP or letter grading.

2. Elementary Spanish. (4) Lecture, three hours; laboratory, two hours. Taught in Spanish. Laboratory is online. Introductory Spanish language and culture course that is proficiency-oriented, communicative, and task-based to help develop communicative competence in four skill areas (listening, speaking, reading, and writing), as well as cultural competence. P/NP or letter grading.

2A. Intermediate Spanish. (4) Lecture, 20 hours; laboratory, five hours. Enforced requisite: course 1 or one year of high school basic course in Spanish, with cultural activities, field trips, luncheons. Offered in summer only. P/NP or letter grading.

2B. Reading Course for Graduate Students. (4) Lecture, three hours. Enforced requisite: course 1G. May not be applied toward degree requirements. S/U grading.

3. Elementary Spanish. (4) Lecture, three hours; laboratory, two hours. Taught in Spanish. Laboratory is online. Introductory Spanish language and culture course that is proficiency-oriented, communicative, and task-based to help develop communicative competence in four skill areas (listening, speaking, reading, and writing), as well as cultural competence. P/NP or letter grading.

3A. Intermediate Spanish. (4) Lecture, 20 hours; laboratory, five hours. Enforced requisite: course 1 or one year of high school basic course in Spanish, with cultural activities, field trips, luncheons. Offered in summer only. P/NP or letter grading.

4. Intermediate Spanish. (4) Lecture, three hours; laboratory, two hours. Taught in Spanish. Laboratory is online. Intermediate Spanish language and culture course designed to increase communicative ability. Acquisition of cultural competence and introduction to study of literature. Comprehension of conversations and stretches of connected discourse, reading of texts with minimum use of dictionary, along with increased grammatical accuracy and control of sentence structure, coherence, and text organization, talking about past, present, and future events, and expression of preferences, feelings, beliefs, and opinions. P/NP or letter grading.

5. Intermediate Spanish. (4) Lecture, three hours; laboratory, two hours. Taught in Spanish. Laboratory is online. Intermediate Spanish language and culture course designed to increase communicative ability. Acquisition of cultural competence and introduction to study of literature. Comprehension of conversations and stretches of connected discourse, reading of texts with minimum use of dictionary, along with increased grammatical accuracy and control of sentence structure, coherence, and text organization, talking about past, present, and future events, and expression of preferences, feelings, beliefs, and opinions. P/NP or letter grading.

6. Intermediate Spanish. (4) Lecture, three hours; laboratory, two hours. Taught in Spanish. Laboratory is online. Intermediate Spanish language and culture course designed to increase communicative ability. Acquisition of cultural competence and introduction to study of literature. Comprehension of conversations and stretches of connected discourse, reading of texts with minimum use of dictionary, along with increased grammatical accuracy and control of sentence structure, coherence, and text organization, talking about past, present, and future events, and expression of preferences, feelings, beliefs, and opinions. P/NP or letter grading.

7A. Introductory Spanish for Heritage Speakers. (4) Lecture, three hours; laboratory, two hours. Laboratory is online. Designed for students who are from Spanish-speaking family background and have some knowledge of Spanish. Introductory course to further develop communicative abilities, both verbal and written, and to increase knowledge of grammatical structures and achieve communicative competence. P/NP or letter grading.

7B. Intermediate Spanish for Heritage Speakers. (4) Lecture, three hours; laboratory, two hours. Enforced requisite: course 3 or Spanish placement test. Laboratory is online. Designed for students who are from Spanish-speaking family background and have some knowledge of Spanish. Intermediate course to further develop communicative abilities, both verbal and written, and to increase knowledge of grammatical structures and achieve communicative competence. P/NP or letter grading.

9A-9B. Advanced Conversation. (2–2) Discussion, three hours. Course 9A is open to students with credit for course 4. Students who have completed course 3 with grade of B or better may be admitted. P/NP or letter grading.

10. Intensive Elementary Spanish. (12) Lecture, 20 hours. Intensive elementary instruction in speaking, listening, reading, and writing equivalent to courses 1, 2, and 3, with emphasis on Spanish grammar and Hispanic culture. Offered in summer only. P/NP or letter grading.

11A-11B. Catalan Language and Culture I, II. (4–4) Lecture, six hours. Introduction to oral and written Catalan language. Two-term accelerated language sequence equivalent to three terms of traditional pattern and designed for advanced undergraduate and graduate students. P/NP or letter grading. Preparation: at least two years of college-level Spanish, Portuguese, or another Romance language other than Catalan. 11B. Requisite: course 11A.

12A-12B-12C. Basque Language and Culture I, II, III. (4–4–4) Lecture, five hours. Introduction to Basque language and culture. Three-term language sequence with emphasis on listening, speaking, reading, writing, and cultural competence. P/NP or letter grading. 12B. Requisite: course 12A, 12C. Requisite: course 12B.

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of specialization on many paths of discovery at UCLA. P/NP grading.

25. Advanced Spanish Composition. (4) Lecture, three hours. Requisite: course 5. Emphasis on development of communicative abilities, both verbal and written, as well as on increasing comprehension of variety of forms of cultural production in Spanish language and on preparation for more advanced Spanish courses. P/NP or letter grading.


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227. 17th-Century Portuguese Literature. (4) Lecture, three hours. Enforced requisite: course 27. Study of principal features through representative works. May be repeated for credit with topic change. S/U or letter grading.

228. Post-Romanticism and Naturalism in Portuguese Literature. (4) Lecture, three hours. Enforced requisite: course 27. Study of representative trends and authors. May be repeated for credit with topic change. S/U or letter grading.

231. Colonial Brazilian Literature and Culture. (4) Lecture, three hours. Enforced requisite: course 27. Study of most important authors to 1830. May be repeated for credit with topic change. S/U or letter grading.

232. 19th-Century Brazilian Literature and Culture. (4) Lecture, three hours. Study of representative trends and authors. May be repeated for credit with topic change. S/U or letter grading.


235. 20th-Century Brazilian Literature. (4) Lecture, three hours. Enforced requisite: course 27. Study of representative trends and authors. May be repeated for credit with topic change. S/U or letter grading.

M249. Folk Literature of Spanish and Portuguese Worlds. (4) Same as Spanish M251A-M251B. Lecture, two hours. Intensive study of folk literature of Spanish and Portuguese cultures as represented in (1) ballad and poetry, (2) narrative and drama, (3) speech, S/U or letter grading.

M251A-M251B. Studies in Galician-Portuguese and Old Spanish. (4–4) Same as Spanish M251A-M251B. Lecture, two hours. Study of problems related to historical development of Galician-Portuguese and Old Spanish. Each course may be repeated once with topic change and consent of appropriate guidance committee.


255. Studies in Modern Brazilian Literature. (4) Discussion, two hours. S/U or letter grading.


290. Special Topics. (4) Discussion, two hours. Enforced requisite: course 3 or 7A or Spanish placement test. May be repeated for credit. S/U grading.

290. Graduate Research Group. (2) Research group meeting, two hours. Limited to graduate students. Designed to bring together graduate students in seminar setting with one or more faculty members to discuss and critique individual research projects, especially dissertation research. S/U grading.

370. Teaching Apprentice Practicum. (1 to 4) Seminar, to be arranged. Preparation: apprentice personnel employment as teaching assistant, associate, or fellow. Teaching apprenticeship under active guidance and supervision of regular faculty member responsible for curriculum and instruction at UCLA. May be repeated for credit. S/U grading.

596. Directed Individual Study or Research. (4 or 6) Tutorial, to be arranged. Study or research in areas or subjects not offered as regular courses. No more than 8 units may be applied toward MA course requirements. S/U or letter grading.

597. Preparation for Graduate Examinations. (4 to 12) Tutorial, to be arranged. Preparation: official acceptance of candidacy by department. Individual preparation for MA comprehensive examination or PhD qualifying examinations. May be taken only once for each degree examination and only in term that comprehensive or qualifying examinations are to be taken. S/U grading.


Upper-Division Courses

20A. Spanish for Special Purposes: Medical. (4) Lecture, three hours. Requisite: course 3. Practice in speaking, reading, and writing Spanish using appropriate vocabulary and cultural situations for students with special interest in fields such as medicine, business, law, etc. P/NP or letter grading.

M35. Spanish, Portuguese, and Nature of Language. (3) Same as Portuguese M35.) Lecture, three hours; discussion, one hour. Introduction to language study within context of Romance languages, focusing on Spanish and Portuguese. Nature of language: structure, diversity, evolution, social and cultural settings, literary uses. Study of language and its relation to other areas of human knowledge. P/NP or letter grading.

42. Iberian Cultures. (5) Lecture, four hours; discussion, one hour. Required of majors. Lectures taught in English; discussion sections taught in either Spanish or English. Highlights of civilization of Spanish America, with emphasis on artistic, economic, social, and historical development as background for upper-division courses. P/NP or letter grading.

44. Latin American Cultures. (5) Lecture, four hours; discussion, one hour. Required of majors. Lectures taught in English; discussion sections taught in either Spanish or English. Highlights of civilization of Spanish America, with emphasis on artistic, economic, social, and historical development as background for upper-division courses. P/NP or letter grading.

60A-60B-60C. Hispanic Literature in Translation. (4-4-4) Lecture, three hours; seminar, two hours. Selections and analysis of selected works in translation. Classroom discussion, papers, and examinations in English. 60A. Spanish Literature; 60B. Spanish-American Literature; 60C. Don Quixote.

88A-88Z. Lower-Division Seminars. (4 each) Seminar, three hours. Knowledge of Spanish not essential. Variable topics courses designed to explore various themes and issues pertinent to Hispanic literature and culture.

89. Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to lower-division lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

89HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to lower-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

97. Variable Topics in Spanish. (2) Lecture, two hours. Variable topics course with lectures, discussions, and papers; consult Schedule of Classes or department counselor for topic to be offered in specified term. May be repeated for credit. P/NP or letter grading.

99. Student Research Program. (1 to 2) Tutorial (supervised research or other scholarly work), three hours per week per unit. Entry-level research for lower-division students under guidance of faculty mentor. Students must be in good academic standing and enrolled in minimum of 12 units (excluding this course). Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP or letter grading.

100A-100B. Introduction to Study of Spanish Grammar. (4-4) Lecture, four hours. Requisite: course M35. P/NP or letter grading. 100A. Phonology and Morphology. Analysis of phonemic and morphological systems of Spanish. 100B. Syntax. Study of syntactical systems of Spanish.


107. Advanced Spanish Grammar for Heritage Speakers (4) Lecture, four hours. Requisite: course 27. Stress on acquisition of standard and formal registers and advanced grammatical structures, accentuation, orthography, and avoidance of vocabulary and sentence structure. Draws from existing linguistic background and research in heritage language teaching in Spanish. Comprehensive review of Spanish grammar with attention given to advanced concepts and structures that are not covered in lower-level courses. Development of writing skills through application of grammar concepts. P/NP or letter grading.


120. Literature in Historical Context. (4) Lecture, four hours. Requisites: courses 25 or 27, or 119. Introduction to different ways of looking at literary works as historical phenomena. Presentation of major models for writing history—great narratives, cyclical, teleological, sacred, and profane conceptions. Traditional concepts of literary history and problems of mixed categories (historical epochs versus epochs of style, national history, and world literature). P/NP or letter grading.

130. Topics in Medieval Studies. (4) Lecture, four hours. Requisites: courses 25 or 27, and 119. Exploration of medieval Iberian literatures: lyric poetry, prose, and history of peninsula, with emphasis on its literary and linguistic diversity. Possible topics include Convivencia (peaceful coexistence), Europe and Orient, beginnings of Inquisition, oral versus written traditions, origins of Hispanic-Christian expansion beyond peninsula, and influence of Arabic culture. Enforced requisite: credit with topic change. P/NP or letter grading.

135. Topics in Early Modern Studies. (4) Lecture, four hours; discussion, one hour (when scheduled). Enforced requisite: courses 25 or 27, and 119. Exploration of 16th and 17th centuries, with focus on early modern period of Spain and Spanish America. Possible topics include Spanish colonization and indigenous responses, transatlantic literary and visual bo. End of early modern nation, transatlantic fictions, early modern identities and theatrical representations, literature and historiography, and role of Spanish colonial poetry. May be repeated for credit with topic change. P/NP or letter grading.

140. Topics in Modern Studies. (4) Lecture, four hours. Requisites: courses 25 or 27, and 119. Exploration of late 18th and 19th centuries in Spain and Spanish America. Possible topics include Enlightenment, Romanticism, nation-building literature, realism and naturalism, and works by Cadalso, Conconi corvo, Lizardi, Larra, Sarmiento, Bécquer, Isacs, Mera, Villaverde, and Galdós. May be repeated for credit with topic change. P/NP or letter grading.


150. Topics in Contemporary Studies. (4) Lecture, four hours; discussion, one hour (when scheduled). Requisites: courses 25 or 27, and 119. Exploration of main trends that characterize contemporary Latin American and Spanish literatures and cultures and main concepts used to address them. Possible topics include transnationalism, heterogeneity, race and ethnicity, gender, and culture. May be repeated for credit with topic change. P/NP or letter grading.

151A. Chicano Narrative. (4) Same as Chicana and Chicano Studies M151A.) Lecture, three hours. En- forced requisite: course 25 or 27. Introduction to major Chicano narrative genres: graphic satire, autobiography, cronicon/semblanza, Chicana detective novel, and Chicana solidarity fiction. Texts examined within their own geographic, cultural, and historical contexts, as well as within history of narrative forms. P/NP or letter grading.


155C. Topics in U.S. Latino Studies. (4) Lecture, four hours. Requisite: course 25 or 27. Exploration of spread of Spanish-American literature and culture throughout North America, including literatures that are outgrowth of civil rights movements of 1960s, re- cent demographic changes, new transnational identities, and mixed citizenships of U.S. Latinos. Chicano, Puerto Rican, Cuban American, Central American American, South American American, and Jewish Latino literatures may be included. May be repeated for credit with topic change. P/NP or letter grading.

160. Topics in Spanish Linguistics. (4) Lecture, four hours. Requisite: course 25. Exploration of origin of language, how Spanish is acquired, evolution of Spanish from Latin to early modern period, how Spanish varies in world, how to teach Spanish, Spanish in contact with other languages. Possible topics include Spanish in Los Angeles, history of Spanish language, first- and second-language acquisition, language and cognition. May be repeated for credit with topic change. P/NP or letter grading.

165. Making It to School in the Community. (5) Same as Chicana and Chicano Studies M165.) Seminar, three hours; fieldwork, 10 hours. Enforced requisite: course 25 or 27. Service learning course to give students opportunity to use cultural and linguistic knowledge acquired in Spanish classes in real-world settings. Students required to spend minimum of eight to 10 hours per week at agreed on site in Latino community. P/NP or letter grading.

170. Topics in Media, Interdisciplinary, and Trans-historical Studies. (4) Lecture, four hours; discussion, one hour (when scheduled). Requisite: course 25 or 27, or 119. Interrelation between print, visual, and live arts, and the way they exist in mass media, new technol- ogies, and different platforms. Possible topics include visual cultures in Latin America, Latin American and Spanish cinema, musical cultures and literature, live art, and performance in popular culture and one-dimen- sional modeling of material culture, and architecture of medieval Iberia. May be repeated for credit with topic change. P/NP or letter grading.

170. Latin American and Chicano Studies. (4) Same as Chicana and Chicano Studies M170.) Seminar, four hours; field project, four to six hours. Recommended requisite: course 100A. In-depth study of various topics relating to Chicano and Chicana writers and the definitions of literary, programs for adult preliterates, literacy and gender, approaches to literacy (whole language, phonics, Freire's liberation pedagogy), history of literacy programs, phonics, Freire's liberation pedagogy, and national literacy campaigns. Required field project involving Spanish-speaking adults in adult literacy programs. P/NP or letter grading.

Spanish and Portuguese / 751
175. Topics in Creative Writing and Translation. (4) Seminar, three hours. Requires: courses 25 or 27, and 119. Exploration of art of translation or creative writing. Guest speakers or instructors include professional literary translators, poets, novelists, playwrights, and those who discuss the methodology, and practice of their art. May be repeated for credit with topic change. P/NP or letter grading.

187A-187B. Advanced Tutorial in Community and Culture I, II. (1–2) Tutorial, one hour. Requires: course 25 or 27, and consent as adjunct to upper-division course in Hispanic literature, language, and culture. Exploration of topics in greater depth through supplemental readings, papers, community service, or other activities. Course 187A may be repeated once for credit. P/NP or letter grading.

189. Advanced Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to undergraduate lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

189HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to upper-division lecture course. In- divisional study with consent of instructor. Exploring topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

191A. Variable Topics in Spanish: Studies in Hispanic Literature and Linguistics. (4) Seminar, three hours. Limited to 15 junior/senior Spanish majors. Variable topics course with readings, discussions, and development of culminating paper. Consult Schedule of Classes or department counselor for topic to be offered in specific term. May be repeated for credit with topic change. P/NP or letter grading.

191B. Variable Topics in Spanish: Studies in Hispanic Culture and Civilization. (4) Seminar, three hours. Advanced variable topics course that studies diverse aspects of Hispanic culture, civilization, and history. Classroom discussions, development of culminating paper, and examinations in Spanish. May be repeated for credit with topic change. P/NP or letter grading.

191C. Senior Capstone Seminar. (4) Seminar, three hours. Enforced requisites: courses 119, 120, and at least three upper-division elective courses required for majors. Limited to senior Spanish majors. Knowledge from previous courses to address current trends in discipline; students work with one faculty member on one focused research topic. Culminating paper required. Letter grading.

195. Community Internships in Spanish. (4) Tuto- rial, one hour per week, 10–15 hours. Requires: course 195A or 295A. Students meet on regular basis with instructor and provide journal of their experience. Final research paper required. May be repeated for credit. Individual contract with supervising faculty member required. P/ NP or letter grading.

197. Individual Studies in Spanish. (2 to 4) Tutorial, to be arranged. Limited to juniors/seniors. Individual intensive study, with scheduled meetings to be arranged between faculty member and student. Assigned reading and tangible evidence of mastery of subject matter required. Eight units of courses 197 and/or 199 may be applied toward major requirements. May be repeated for maximum of 8 units. Indi- vidual contract required by department chair or letter grading.

198A-198B. Senior Honors Research in Spanish I, II. (4–2) Tutorial, to be arranged. Preparation: completion of minimum of six upper-division major core courses with 3.7 grade-point average. Course 198A is enforced prerequisite to 198B. Limited to juniors/seniors. Development and completion of honors thesis under direct supervision of faculty member. May not be ap- plied toward major requirements. Individual contract required. Letter grading.

199. Directed Research in Spanish. (2 to 4) Tutorial, to be arranged. Requires: course 25. Limited to ju- nior/seniors. Supervised individual research under guidance of faculty mentor. Culminating paper required. Eight units of courses 199 and/or 197 may be applied toward major requirements. May be repeated for credit. Individual contract required. P/NP or letter grading.

Graduate Courses

M200. Research Resources. (4) Same as Portu- guese M200) Lecture, three hours. Identification and use of research resources for graduate students.

M201A-M201B. Literary Theory and Criticism. (4- 4) Same as Portuguese M201A-M201B) Lecture, three hours. Definition, discussion, and application of main currents of contemporary literary theory and crit- icism. Letter grading.

M202A. Phonology. (4) Lecture, three hours. Study of the sound structure of Spanish and main phonological processes that map underlying representations into surface representations. Bearing of phonological theory on study of meter.

M202B. Morphology. (4) Lecture, three hours. Study of derivational and inflectional word formation processes and their interaction with syntactic structure.

M204A-204B. Generative Syntax and Semantics. (4- 4) Lecture, three hours. Study of syntactic structure of Spanish and relation between underlying representa- tions and logical form within a principles-and-parame- ters framework. Bearing of syntactic and semantic structure on study of sentences.

M205A-M205B. Development of Portuguese and Spanish Languages. (4-4) (Same as Portuguese M205A-M205B.) Lecture, three hours. Intensive study of historical development of Portuguese and Spanish languages from their origin in spoken Latin.

209. Dialectology. (4) Lecture, three hours. Major dia- lect areas of peninsular and American Spanish, with distinguishing features of each. Influence and contribu- tion of cultural and historical features, including in- digenous languages, to their formation.

221. Medieval Lyric Poetry. (4) Lecture, three hours. Readings of and lectures on Spanish lyric poetry from the beginning to 1500.

222. Medieval Epic and Narrative Poetry. (4) Lect- ture, three hours. Readings of and lectures on Spanish epic and narrative poetry from the beginning to 1500.

223. Medieval Prose. (4) Lecture, three hours. Read- ings of and lectures on Spanish prose from the begin- ning to 1500.

224. Poetry of the Golden Age. (4) Lecture, three hours. Readings of and lectures on Spanish poetry from 1500 to 1700.

225. Drama of the Golden Age. (4) Lecture, three hours. Readings of and lectures on the comedias.


228. The Enlightenment. (4) Lecture, three hours. Readings of and lectures on representative works of the period.

229. Romanticism. (4) Lecture, three hours. Readings of and lectures on representative works of the period.

230. Realism and Naturalism. (4) Lecture, three hours. Readings of and lectures on literary works, principally novels, from 1850 to 1898.

231. Major Currents in Modern Spanish Literature. (4) Lecture, three hours. Introduction to major literary currents, including symbolism, Parnassianism, and the Generation of 1898, with lecture course instructor as adjunct to upper-division course. In- divisional study with consent of appropriate guidance committee.

232. Spanish Prose Literature from 1898 to the Civil War. (4) Lecture, three hours. Readings of and lec- tures on representative essays, novels, and short stories of the period.

233. Spanish Prose Literature after the Civil War. (4) Lecture, three hours. Readings of and lectures on representative essays, novels, and short stories of the period.

234. Spanish Drama and Poetry from 1898 to the Civil War. (4) Lecture, three hours. Readings of and lectures on representative plays and poems.

235. Spanish Drama and Poetry after the Civil War. (4) Lecture, three hours. Readings of and lectures on representative plays and poems of the period.

236. Literature of the Spanish Conquest. (4) Lecture, three hours. Readings of and lectures on chroni- cles, poems, and indigenous accounts of the Spanish Conquest.


241A-241B. Contemporary Spanish-American Short Story. (4-4) Lecture, three hours. Study of im- portant short story writers from modernism to the present.

243A-243B. Contemporary Spanish-American Po- etry. (4-4) Lecture, three hours. Study of important poets of Spanish America from modernism to the present.

244A-244B. Contemporary Spanish-American Nov- el. (4-4) Lecture, three hours. Study of important nov- elists from modernism to the present.


249. Folk Literature of Spanish and Portuguese Worlds. (4) (Same as Portuguese M249.) Lecture, three hours. Intensive study of folklore literature of Spanish and Portuguese cultures as represented in (1) ballad and poetry, (2) narrative and drama, (3) speech. S/U or letter grading.

M251A-M251B. Studies in Galego-Portuguese Literature. (4-4) (Same as Portuguese M251A- M251B) Lecture, two hours. Study of problems rel- ated to historical development of Galego-Portu- guese and Old Spanish. Each course may be repeated once with topic change and consent of appropriate guidance committee.

256A-256B. Studies in Spanish Linguistics. (4-4) Lecture, two hours. Study of problems in analysis and description of the contemporary Spanish language. Each course may be repeated once with topic change and consent of appropriate guidance committee.

257. Studies in Dialectology. (4) Discussion, two hours. May be repeated once with topic change and consent of appropriate guidance committee.

262A-262B. Studies in Medieval Spanish Literature. (4-4) Discussion, two hours. Each course may be re- peated once with topic change and consent of appro- priate guidance committee.

264A-264B. Studies in Golden Age Spanish Literary History. (4-4) Discussion, two hours. Each course may be repeated once with topic change and consent of appropriate guidance committee.

265. Cervantes. (4) Discussion, two hours. May be re- peated once with topic change and consent of appro- priate guidance committee.

270A-270B. Studies in 18th-Century Spanish Literature. (4-4) Discussion, two hours. Each course may be repeated once with topic change and consent of appropriate guidance committee.
271A-271B. Studies in 19th-Century Spanish Literature. (4–4) Discussion, two hours. Each course may be repeated once with topic change and consent of appropriate guidance committee.

272A-272B. Studies in 20th-Century Spanish Literature. (4–4) Discussion, two hours. Each course may be repeated once with topic change and consent of appropriate guidance committee.

277A-277B. Studies in Colonial Spanish-American Literature. (4–4) Discussion, two hours. Each course may be repeated once with topic change and consent of appropriate guidance committee.

278A-278B. Studies in 19th-Century Spanish-American Literature. (4–4) Discussion, two hours. Each course may be repeated once with topic change and consent of appropriate guidance committee.

280A-280B. Studies in Contemporary Spanish-American Literature. (4–4) Discussion, two hours. Each course may be repeated once with topic change and consent of appropriate guidance committee.

281. Studies in Chicano Literature. (4) Discussion, two hours. May be repeated once with topic change and consent of appropriate guidance committee.

286A-286B. Studies in Hispanic Folk Literature. (4–4) Lecture, two hours. Each course may be repeated once with topic change and consent of appropriate guidance committee. S/U or letter grading.

290. Special Topics. (4) Lecture, two hours. Variable topics; consult Schedule of Classes or department counselor for topics to be offered in a specific term. May be repeated once with topic change and consent of appropriate guidance committee.

291A-291B. Colonial Studies Research Group. (2–2) Research group meeting, two hours. Limited to graduate students. Discussion and analysis of colonial manuscripts. Specific topics vary from year to year. Production of student papers for publication and/or presentation at conferences or symposia. 291A. S/U grading. 291B. Requisite: course 291A. May be repeated for credit. S/U or letter grading.

296. Graduate Research Group. (2) Research group meeting, two hours. Limited to graduate students. Designed to bring together graduate students in seminar setting with one or more faculty members to discuss and critique individual research projects, especially dissertation research. S/U grading.

310. Teaching Spanish in Elementary School. (4) Lecture, three hours.


373. Teaching Composition. (2) Designed for graduate students. Seminar on teaching writing in Spanish language courses. Introduction to composition theory. Instruction and practice in integrating writing into curriculum, setting goals and standards, designing and sequencing course materials, evaluating and commenting on papers. May not be repeated for credit. S/U grading.

375. Teaching Apprentice Practicum. (1 to 4) Seminar, to be arranged. Preparation: apprentice personnel employment as teaching assistant, associate, or fellow. Teaching apprenticeship under active guidance and supervision of regular faculty members responsible for curriculum and instruction at UCLA. May be repeated for credit. S/U grading.

490. Using Technology in Foreign Language Classroom. (4) Discussion, two hours. Designed for graduate students. Theory and practice of using technology in foreign language classroom. Computer applications that facilitate instruction of grammar, discourse, culture, and composition, as well as evaluation and communication between students and instructor. S/U grading.


596. Directed Individual Study or Research. (4 or 8) Tutorial, to be arranged. Study or research in areas or subjects not offered as regular courses. No more than 4 units may be applied toward MA course requirements. S/U or letter grading.

597. Preparation for Graduate Examinations. (4 to 12) Tutorial, to be arranged. Preparation: official acceptance of candidacy by department. Individual preparation for MA comprehensive examination or PhD qualifying examinations. May be taken only once for each degree examination and only in term that comprehensive or qualifying examinations are to be taken. S/U grading.


### Statistics

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**Adjunct Assistant Professors**

- Katherine M. Mullen, PhD
- Chenli Shi, PhD
- Alan R. Vázquez-Alcocer, PhD

### Undergraduate Study

The Statistics major is a designated capstone major. Students are prepared for future academic studies, as well as for careers in which understanding, analyzing, communication, and organizing data are of central importance. The capstone gives students an opportunity to put into practice concepts and ideas that otherwise might remain theoretical and/or abstract, and to synthesize the many topics they have studied. Students should demonstrate ability to restate investigative questions in terms of statistical models or algorithms, find appropriate research literature to support their work, relate theoretical concepts to real-world problems, and clearly communicate their results to nontechnical audiences.
The Data Theory major is a designated capstone major. Students work in small teams to solve large, open-ended data science problems for community- or campus-based clients. Emphasis is placed on the development and theoretical support of a statistical model or algorithmic approach. Alternatively, students may undertake research on the foundations of data science, studying advanced topics and writing a senior thesis.

Students interested in either the major or minor in Statistics should meet with the student affairs officer early in their careers. Students who have completed Mathematics 33A, Statistics 20, and at least one course from Statistics 10 through 13 may declare a premajor.

Statistics BS
Capstone Major
The Statistics major is designed to provide a general introduction to the practice of statistics for students who intend to pursue study at the graduate level or seek employment in industry or government. Courses are selected to provide sufficient theoretical background for future graduate-level research work, exposure to modern techniques and practices, and experience in fields of application.

It is strongly recommended that students, in conjunction with the BS degree, pursue a minor in a substantive discipline that applies statistics. Students must consult with the undergraduate faculty adviser to ensure that the minor selected is one in which statistics is applied.

Learning Outcomes
The Statistics major has the following learning outcomes:

- Ability to restate an investigative question in terms of a statistical model or algorithm
- Verbally communicate statistical results clearly to a non-technical audience
- Successfully relate theoretical concepts to a real-world problem in a written report
- Demonstrated ability to find research literature appropriate to the investigative task
- Deliver reproducible statistical analyses using accepted practices of the research community
- Demonstrated ability to verbally and orally communicate statistical results to both technical and non-technical audiences

Premajor
Incoming freshman and transfer students may be admitted as Statistics premajors on acceptance to UCLA. Premajor students must apply for the major after completing Statistics 20, and one course from Statistics 10 through 13, with grades of C or better, and an overall grade-point average of 2.5. Any student who meets the premajor requirements may declare the major with the undergraduate adviser in 8117A Mathematical Sciences, 310-206-3342.

Preparation for the Major
Required: Mathematics 31A, 31B, 32A, 32B, 33A, Statistics 20, and one course from Statistics 10 through 13. Each course must be completed with a grade of C or better, and a grade-point average of 2.5 or higher. Students who repeat more than two of the preparation courses or who repeat any preparation course more than once are automatically denied admission to the major.

Freshman Students
Students who entered as freshmen must declare the major with the undergraduate adviser no later than the end of the fall quarter of their junior year.

Transfer Students
Transfer applicants to the Statistics major with 90 or more units must complete as many of the following introductory courses as possible prior to admission: two years of calculus, one linear algebra course, and one statistics course. These courses must be completed with a minimum grade-point average of 2.5. Students must declare the major with the department undergraduate adviser no later than the end of the fall quarter of their junior year.

Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

The Major
Required: Statistics 100A, 100B, 100C, 101A, 101B, 101C, 102A, 102B, 102C, two capstone statistical consulting courses (140SL, 141SL), and two upper-division elective courses selected from courses 130, 131, 143 through 199, Mathematics 131A, 131B, 131A, 151B, 170B, 171, 172B, 175. Selective courses from outside the department are selected in consultation with the undergraduate faculty adviser.

The capstone consists of two courses (Statistics 140SL and 141SL) that must be completed sequentially in the final year. Students must first take courses 100B, 101B, and 130 before they can begin the capstone.

Only 4 units of course 199 may be applied toward the major. Courses 189 and 189HC may not be applied toward any of the major requirements.

Students planning to continue their study of statistics at the graduate level are strongly advised to include in their schedule as many of the following courses as possible: Mathematics 115A, 115B, 131A, 131B, 151A, 151B, 170B, 171.

Each major course must be taken for a letter grade, and students must have an overall grade-point average of 2.0 or better.

Data Theory BS
Capstone Major
Learning Outcomes
The Data Theory major has the following learning outcomes:

- Understanding of mathematical and statistical bases of most common methods of data science
- Ability to explain in writing, with examples, how concepts of statistics and mathematics together solve real-world problems involving data
- Skillfully manage data
- Development, comparison, and testing of data-driven models to solve problems
- Understanding and explanation of variability when fitting and interpreting models of real-world systems
- Carrying out of reproducible data analysis using accepted practices of research community
- Written and verbal communication of findings of analyses
- Identification of areas of active research in data science
- Insightfully address problems concerning ethics of data use and storage, including data privacy and security
- Demonstrated mastery of concepts and skills of machine learning, modeling and supervised learning, dimension reduction and unsupervised learning, and deep learning
- Demonstrated familiarity with numerous software tools used in statistical and data science work and research
- Demonstrated knowledge of mathematical foundations, including pure and applied linear algebra, basic analysis, probability, and optimization theory
- Study and evaluation of proofs of mathematical and statistical results employed in data theory
- Work effectively in a team on a data science problem
- Demonstrated eligibility for graduate study in applied mathematical science or statistical science

Premajor
Students entering UCLA directly from high school or first-term transfer students who want to declare the Data Theory premajor at the time they apply for admission are automatically admitted to the premajors. Students must visit the student services office of either the Mathematics Department or Statistics Department in order to petition to enter the major. All students are identified as Data Theory premajors until they satisfy the following minimum requirements for the major.

Preparation for the Major
Required: Mathematics 31A, 31B, 32A, 32B, 33A, 42, 115A; Program in Computing 10A; one course selected from Statistics 10, 12, 13, 15; Statistics 20, 21. Each course must be completed with a grade of C or better and an overall grade-point average of at least 2.7. All students must take Mathematics 42 at UCLA. The major is limited in size according to available resources.

Repetition of more than two mathematics or statistics sequenced courses or of any mathematics or statistics sequenced course more than once results in automatic dismissal from the major.

Freshman Students
To enter the major, students must petition after they have completed the preparation for the major courses. Students who have an overall grade-point average (GPA) of at least 3.3 in the preparation for the major courses, and have completed all preparation for the major courses before the fall quarter of
their third year at UCLA, will be admitted to the major.

Students whose overall GPA is between 2.7 and 3.3, or who fail to complete the preparation courses before the fall quarter of their third year, are admitted only if space is available. All students must petition before they have earned 160 units, or by the winter quarter of their junior year, whichever comes first. Only grades for courses that are taken at the University of California, including UC summer schools, are counted for this GPA computation.

Transfer Students
Transfer applicants to the Data Theory major are admitted to the premajor. Applicants with 90 or more units must have completed the following by the end of the spring term prior to entry to UCLA: two years of calculus for physical science and/or engineering majors, one linear algebra course, one C++ programming course, one statistics course.

Transfer students must have completed all preparation for the major coursework, and must have passed Mathematics 42, 115A, and at least 4 units of upper-division coursework required for this major with at least a 3.3 GPA, in order to be eligible to petition to enter the major. Transfer students will be admitted to the major if they satisfy these requirements. Transfer students who fail to meet these criteria for automatic admission will be admitted only if resources allow. Transfer students must petition to enter the major no later than the spring quarter of their first year at UCLA.

Refer to the UCLA transfer admission guide for up-to-date information regarding transfer selection for admission.

After satisfying the preparation for the major requirements, students must visit the student services office of either the Mathematics Department or Statistics Department in order to petition to enter the major.

The Major
Required: Mathematics 118, 131A, 156, Statistics 101A, 102A, 102B, 101C, 147, 184; one two-quarter sequence: Mathematics 170E and 170S, or Statistics 100A and 100B; one elective selected from Mathematics 151A, 151B, 164, 168, 171, 174E, 178A, 178B, 178C, 179 or 182; one elective selected from Statistics 100C, 101B, 102C, or C151 through 199 (except Statistics 182, 186, and 189); two additional electives from either of the above lists; a capstone course (Mathematics M148 or Statistics M148), to be taken during the final year.

Only 4 units of course 199 may be applied toward the major. Courses 189 and 189HC may not be applied toward any of the major requirements.

Each major course must be taken for a letter grade, and students must have an overall grade-point average of 2.0 or better.

Statistics Minor
The Statistics minor is designed to provide a solid background in statistics for students majoring in other disciplines.

To enter the minor, students (1) must have taken Mathematics 33A, Statistics 20, and one course from Statistics 10 through 15 for letter grades with a minimum C grade or better in each and a grade-point average of 2.5, and (2) file a petition with the department undergraduate adviser.

Required Upper-Division Courses (24 units): Six upper-division courses selected from one of the following options: (1) any two sequences from Statistics 100A, 100B, and 100C, or 101A, 101B, and 101C, or 102A, 102B, and 102C, or (2) two courses from each of the above sequences.

A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor.

Each minor course must be taken for a letter grade, and students must have an overall grade-point average of 2.0 or better in the minor. Successful completion of the minor is indicated on the transcript and diploma.

Graduate Study
Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Division website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Graduate Degrees
The Department of Statistics offers Master of Science (MS), Candidate in Philosophy (CPhil), and Doctor of Philosophy (PhD) degrees in Statistics; and a self-supporting Master of Applied Statistics (MAS) degree.

Statistics
Lower-Division Courses
10. Introduction to Statistical Reasoning. (5) Lecture, three hours; discussion, one hour; computer laboratory, two hours. Preparation: three years of high school mathematics. Not open for credit to students with credit for course 11, 12, 13, 14, or former course 101H. Introduction to statistical thinking and understanding, including strengths and limitations of basic experimental designs, graphical and numerical summaries of data, inference, regression as descriptive tool. P/NP or letter grading.

12. Introduction to Statistical Methods for Geogra- phy and Environmental Studies. (5) Lecture, four hours; discussion, one hour, laboratory, one hour. Not open for credit to students with credit for course 10, 11, or 13. Introduction to statistical thinking and understanding, with emphasis on techniques used in geography and environmental science. Underlying topic behind statistical procedures, role of variation in statistical thinking, strengths and limitations of statistical summaries, and fundamental inferential tools. Emphasis on applications in geography and environmental science in laboratory work using professional statistical analysis package, including spatial statistics. P/NP or letter grading.

13. Introduction to Statistical Methods for Life and Health Sciences. (6) Lecture, three hours; discussion, one hour; laboratory, one hour. Not open for credit to students with credit for course 10, 10H, 11, 12, or 14. Presentation and interpretation of data, descriptive statistics, introduction to correlation and regression and to basic statistical inference (estimation, testing of means and proportions, ANOVA) using both bootstrap methods and parametric models. P/NP or letter grading.

15. Introduction to Data Science. (5) Lecture, three hours; discussion, one hour; computer laboratory, one hour. Preparation: three years of high school mathematics. Not open to students with credit for courses 10, 12, 13, or former course 101H, 11, or 14. Introduction to data science, including data management, data modeling, data visualization, communication of findings, and reproducible work. P/NP or letter grading.

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.


21. Python and Other Technologies for Data Science. (4) Lecture, three hours; discussion, one hour. Enforced requisite: course 10. Covers use of Python and other technologies for data analysis and data science. Focus on programming with Python and selection of its libraries. Numpy, matplotlib, and scikit-learn, for purpose of data processing, data cleaning, data analysis, and machine learning. Other technologies covered include Jupyter notebook and Git. Intended for Data Theory majors as introduction to Python language and libraries most frequently used in data science. Letter grading.

35. Introduction to Probability with Applications to Poker. (4) Lecture, three hours; discussion, one hour. Exploration of some major topics in introductory probability theory, especially discrete probability problems, that are useful in wide variety of scientific applications. Topics include conditional probability and conditional expectation, combinatorics, laws of large numbers, central limit theorem, Bayes theorem, univariate distributions, Markov processes, and Brownian motion. Examination of computer simulation in depth and discussion of computational approximations of solutions to complex problems using R, with examples of situations and concepts that arise naturally when playing Texas Hold’em and other games. P/NP or letter grading.

88. Sophomore Seminars: Statistics. (2) Seminar, two hours. Prerequisite: course 10 from 11, 12, 13, or 14. Limited to 20 lower-division students. Readings and discussions designed to introduce students to current statistical consulting research and fieldwork disciplines. Culminating project may be required. P/NP or letter grading.

89. Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to lower-division lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by less-tenured instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

89HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to lower-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

99. Student Research Program. (1 to 2) Tutorial (supervised research or other scholarly work). Three hours per week per unit. Entry-level research for lower-division students under guidance of faculty mentor. Students must be in good academic standing and enrolled in a minimum of 12 units (excluding this course). Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP grading.
Upper-Division Courses

100A. Introduction to Probability. (4) Lecture, three hours; discussion, one hour. Requisites: Mathematics 32B, 33A. Not open to students with credit for Electrical Engineering 131A or Mathematics 170A; open to graduate students only. Fundamentals of probability theory, including: classical definitions of probability, special sampling models, dependence and independence, random variables and their distributions, expectation, variance, generating functions, law of large numbers, central limit theorem, introduction to Markov chains. (Same as Statistics C100A.) Lecture, three hours. P/NP or letter grading.

100B. Introduction to Mathematical Statistics. (4) Lecture, three hours; discussion, one hour. Requisite: course 100A or Mathematics 170A or 170E. Survey sampling, estimation, testing, data summary, one- and two-sample methods, tests of hypotheses. P/NP or letter grading.

102A. Introduction to Computational Statistics with R. (4) Lecture, three hours; discussion, one hour. Enforced requisite: course 101A. Introduction to computational statistics through numerical methods and computer programming to solve statistical problems. Emphasis on use of R and R libraries—NumPy, pandas, Matplotlib, and scikit-learn—for a variety of tasks, such as generation of random numbers from specific distributions, randomization and blocking, completely randomized design, analysis of variance, randomized block designs, Latin square designs, balanced incomplete block designs, factorial designs, fractional factorial designs, minimum aberration designs, robust parameter designs. Concurrently scheduled with course C225. P/NP or letter grading.

105. Statistics for Engineers. (4) Lecture, three hours; discussion, one hour. Requisite: course 100A or Electrical Engineering 151A or Mathematics 170A. Foundation of basic statistical concepts and techniques of statistics. Topics include sampling distributions, statistical estimation (including maximum likelihood estimation), statistical intervals, and hypothesis testing, with emphasis on application of these concepts. Discussion of methods for checking whether assumptions required for mathematical foundations are appropriate for given set of data. P/NP or letter grading.


116. Social Statistics. (4) Lecture, three hours. Preparation: some knowledge of basic calculus and linear algebra. Requisites: courses 100A and 100B, or 101B and 101C, or one course from 10, 11, 12, 13 and one upper-division statistics course using R expression. Designed for social sciences graduate students and advanced undergraduate students seeking training in data issues and methods employed in social sciences. Concurrently scheduled with course C216. P/NP or letter grading.

130. Getting Up to Speed with SPSS, Stata, SAS, and R. (4) Lecture, three hours; discussion, one hour. Preparation: basic statistics, basic computer literacy. Study of four commonly employed solutions—SPSS (Statistical Package for Social Sciences), Stata, SAS (Statistical Analysis System), and R—for data analytic and statistical issues in health sciences, economics, and government. Emphasis on applied problem solving, measurement issues in data analysis, use of computer for analysis of large-scale data. P/NP or letter grading.

131. Python and Other Technologies for Data Analysis. (4) Lecture, three hours; discussion, one hour. Requisite: course 102A. Limited to junior/senior statistics majors and minors. Use of Python and other technologies for data analysis and data science. Focus on programming with Python and selection of its libraries—NumPy, pandas, Matplotlib, and scikit-learn—for purpose of data processing, data cleaning, data analysis, and machine learning. Other technologies covered include Jupyter notebook, Structured Query Language (SQL), and git. P/NP or letter grading.

140SL. Practice of Statistical Consulting. (4) Lecture, one hour; discussion, one class hour. Requisites: courses 100B, 101B. Limited to seniors. Opportunity to solve real data analysis problems for real community-based or campus-based clients. Students work in small groups with faculty member and client to frame client’s question in statistical terms, create statistical model, analyze data, and report results. Students may elect to undertake research on foundations of code that executes inference and decision. Covers probabilistic decision making, implementation of code that executes inference and decision. Covers Markov decision process, planning, search, and reinforcement learning algorithms. P/NP or letter grading.

141SL. Practice of Statistical Consulting. (4) Seminar, one hour; discussion, one hour; research group meeting, two hours. Requisite: course 140SL. Limited to seniors. Opportunity to solve real data analysis problems for real community-based or campus-based clients. Students work in small groups with faculty member and client to frame client’s question in statistical terms, create statistical model, analyze data, and report results. Weekly meetings in classroom setting to study basic consulting skills, share experiences, exchange ideas, and make reports. On-site visits as necessary. Courses 140SL and 141SL must be taken in consecutive terms. Letter grading.


147. Data Technologies for Data Scientists. (2) Lecture, two hours. Requisites: courses 100B or Mathematics 170S, 101A, 101C or Mathematics 156. Limited to seniors. Introduction to variety of tools and technologies used in data science and for students for applied project work. Topics include use of collaborative repository hosting services allowing access control; secure cloud services platforms that cover computing, power and data storage; open source artificial intelligence libraries. Recommended to be taken prior to or concurrently with course M148. Letter grading.

M148. Experience of Data Science. (4) (Same as Mathematics M148.) Lecture, four hours. Requisites: courses 100B or Mathematics 170S, 101A, 101C or Mathematics 156, Mathematics 118, 131A. Students solve real data science problems for community- or campus-based clients. Students work in small groups with faculty member and client to frame client’s question in data science terms, create mathematical models, analyze data, and report results. Students are encouraged to undertake solutions of data science, studying advanced topics and writing senior thesis with discussion of findings or survey of literature on chosen focus. Development of collaborative skills, communication principles, and discussion of ethical issues. Letter grading.

C145. History and Theory of Statistics. (4) Lecture, three hours. Enforced requisite: course 100C, 101A. Basic principles, theory of statistics, and its strengths and weaknesses. Preparation for graduate students. Open to graduate students. Enforced requisite: one course from 10, 12, 13 or Psychology 3. Students work in small groups with faculty member and client to frame client’s question in statistical terms, create statistical model, analyze data, and report results. Weekly meetings in classroom setting to study basic consulting skills, share experiences, exchange ideas, and make reports. On-site visits as necessary. Courses 140SL and 141SL must be taken in consecutive terms. Letter grading.

M154. Measurement and Its Applications. (4) (Same as Psychology M144.) Lecture, three hours. Requisite: one course from 10, 12, 13, or Psychology 100A. Selected theories for quantification of psychological, educational, social, and biological science data. Classical test, factor analysis, generalizability, item response, optimal scaling, ordinal measurement, computer-adaptive, and related theories. Construction of tests and measures and their reliability, validity, and bias. P/NP or letter grading.

C155. Applied Sampling. (4) Lecture, three hours; discussion, one hour. Designed for upper-division and graduate students. Concept of sampling and importance of sampling and their role in MCMC. Markov chain theory and convergence properties. Metropolis and Gibbs sampling algorithms. Extensions as simulated tempering. Theoretical understanding of methods and their implementation in computer simulation problems. P/NP or letter grading.

C161. Introduction to Pattern Recognition and Ma- chine Learning. (4) Lecture, three hours. Requisites: course 100B, Mathematics 33A. Introduction to pat- tern analysis and machine intelligence designed for advanced undergraduate and graduate students. Concurrently scheduled with course C261. P/NP or letter grading.

170. Introduction to Time-Series Analysis. (4) Lec- ture, three hours; discussion, one hour. Requisite: course 100C or 101A, and 100B. Exploration of stan- dard methods in temporal and frequency analysis used in analysis of numerical time-series data. Examples provided throughout, and students implement technical discussed in class. P/NP or letter grading.

M171 Introduction to Spatial Statistics. (4) (Same as Geography M186.) Lecture, three hours; laboratory, one hour. Requisite: one course from 10, 12, 13. Introduc- tion to methods of measurement and interpreta- tion of spatial data. Distributions and associations. P/ NP or letter grading.

C173. Applied Geostatistics. (4, L) Lecture, three hours; discussion, one hour. Requisite: course 100C (may be taken concurrently) or 101B. Geostatistics can be applied to many problems in other disciplines such as hydrology, traffic, air and water pollution, epide- miology, economics, geography, waste manage- ment, forestry, oceanography, meteorology, and agricul- ture. Students will learn the techniques to every problem where spatial data are observed at geographic locations. Acquisition of knowledge from different areas that can be used to analyze real spatial data problems and to connect geostatistics with geographic information systems (GIS). Concurrently scheduled with course C273. P/ NP or letter grading.

175. Statistics for Spatial Data. (4, L) Lecture, three hours; discussion, one hour. Statistical analysis in analyzing spatial data. Study of three types of spa- tial data: geostatistical data, lattice data, and point patterns, with emphasis on applications and analysis of spatial data. Use of open-source statistical software R. P/NP or letter grading.

C180. Introduction to Bayesian Statistics. (4, L) Lecture, three hours; discussion, one hour. Enrol- led requisites: course 100B, Mathematics 32B. Designed for juniors/seniors. Introduction to statistical inference based on use of Bayes theorem, covering founda- tional aspects, current applications, and computa- tional issues. Topics include Stein paradox, nonpara- metric Bayes, and statistical learning. Examples of ap- plications vary according to interests of students. Concurrently scheduled with course C236. P/NP or letter grading.

182. Fundamentals of Scientific Writing. (2) Sem- inar, one hour. Development and perfection of student written communication skills through variety of scien- tific writing and reading assignments. Objectives and techniques of scientific writing and practice with differ- ent forms of professional writing. Analysis of quality of writing, including control, clarity, grammar, and me- chanics. P/NP or letter grading.


184. Societal Impacts of Data. (2, L) Lecture, two hours. Requisites: courses 100B or Mathematics 170S, 101A, 101C or Mathematics 156. Consideration of impacts that data collected today have upon indi- viduals and society. Rapid increase in scale and types of data and databases as well as new ways to analyze and use it. Consideration of economic, social, and ethical, and legal and political impacts of data, especially that collected on human behavior. Topics include pri- vacy and data protection, intellectual property, confidentiality, sample selection and algorithms, equality and anti-discrimination. Letter grading.

186. Careers in Statistics. (1, Seminar, one hour. Dis- cussion of applications by web guest speakers. How statistics is applied to legal questions, economic decisions, arts, environment, and other fields, with some emphasis on career paths in statis- tics. P/NP or letter grading.

188A. Individual Studies for USIE Facilitators. (1, Tutorial, to be arranged. Enforced corequisite: Honors College 101E. Limited to junior/senior USIE facilita- tors. Individual study in regularly scheduled meetings with faculty mentor to discuss selected USIE seminar topic, conduct preparatory research, and begin prepara- tion of syllabus. Individual contract with faculty mentor required. May not be repeated. Letter grading.

188B. Individual Studies for USIE Facilitators. (1, Tutorial, to be arranged. Enforced corequisite: Honors College 101E. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor to finalize course syllabus. Individual contract with faculty mentor required. May not be repeated. Letter grading.

188C. Individual Studies for USIE Facilitators. (2, Tutorial, to be arranged. Enforced corequisite: course 188A. Limited to junior/senior USIE facilitators. Indi- vidual study in regularly scheduled meetings with facu- lty mentor while facilitating USIE 88S course. Indi- vidual contract with faculty mentor required. May not be repeated. Letter grading.

189C. Honors Contracts. (1, Tutorial, three hours. Limited to students in College Honors Program. De- signed as adjunct to upper-division lecture course. Ind- ividual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible stu- dents. Honors content noted on transcript. P/NP or letter grading.

189HC. Honors Contracts. (1, Tutorial, three hours. Limited to students in College Honors Program. De- signed as adjunct to upper-division lecture course. Ind- ividual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract re- quired. Honors content noted on transcript. Letter grading.

195. Community or Corporate Internships in Statist- ics. (4, Tutorial, four hours. Limited to juniors/seniors. Internship in supervised setting in community agency or business. Students meet on regular basis with in- structor and provide periodic reports of their experi- ence. May be repeated for credit. Individual contract with supervising faculty member required. P/NP or letter grading.

199. Directed Research in Statistics. (1 to 4, Tuto- rial, one hour. Limited to juniors/seniors. Supervised individual research or investigation under guidance of faculty mentor. Culminating paper or project required. May be repeated for credit. Individual contract re- quired. P/NP or letter grading.

Graduate Courses

200A. Applied Probability. (4, Lecture, three hours; discussion, one hour. Requisite: course 100A or Math- ematics 170A. Limited to graduate statistics students. Stochastic processes, continuous-time Markov, martingale, and selected topics from queuing, reliability, speech recognition, computational biology, mathematical finance, epide- miology, S/U or letter grading.


200C. High Dimensional Statistics. (4, Lecture, three hours; discussion, one hour. Survey of modern tech- niques in analyzing high-dimensional and nonpara- metric estimation problems. Emphasis on non-approx- imating methods via concentration inequalities. S/U or letter grading.

201A. Research Design, Sampling, and Analysis. (4, Lecture, three hours; discussion, one hour. De- signed for graduate students. Basic principles, ANOVA block designs, factorial designs, unbalanced probability sampling, regression estimation, stratified sampling, and cluster sampling. S/U or letter grading.

201B. Statistical Modeling and Learning. (4, Lec- ture, three hours; discussion, one hour. Requisites: courses 200A, 201A. Methods of modeling and pa- rameter estimation, with emphasis on regression and classification techniques, including those from ma- chine learning. Interest in either obtaining suitable covariates, or in developing expectation minimizing mean- ingful parameters of underlying probabilistic model to make inferences or predictions from data. Focus on what is to be done when linear models are not appro- priate and what may be possible. Emphasis on the use of classical statistical methods to model fitting and param- eter estimation techniques such as maximum likeli- hood fitting of generalized linear models. Exploration of broader regression/classification techniques that have been ubiquitous in machine learning literature, with special attention to regularization and kernelized methods. S/U or letter grading.

201C. Advanced Modeling and Inference. (4, Lec- ture, three hours; discussion, one hour. Strongly re- commended requisites: courses 200B, 201B. Designed for graduate students. Introduction to advanced topics in statistical modeling and inference, including Bayesian hierarchical models, missing data problems, mixture modeling, additive modeling, hidden Markov models, and Bayesian networks. Coverage of compu- tational methods used and developed for these models, such as EM algorithm, data augmentation, dynamic programming, and belief propagation. S/U or letter grading.

202A. Statistics Programming. (4, Lecture, three hours; discussion, one hour. Recommended requisite: course 202B. Introduction to computing environments/languages such as UNIX, UNIX shell, Python, R, and Processing and data technolo- gies/formats such as relational databases/SQL and XML with emphasis on complex data types, including large collections of textual data, GPS traces, network logs, and various online sources. S/U or letter grading.

202B. Matrix Algebra and Optimization. (4, Lec- ture, three hours; discussion, one hour. Recommended requisite: course 202A. Survey of computa- tional methods that are especially useful for statistical analysis, with implementations in statistical package R. Topics include matrix analysis, multivariate regres- sion, principal components, statistical analy- sis, and deterministic optimization methods. S/U or letter grading.


205. Hierarchical Linear Models. (4) Lecture, three hours. Recommended for students in statistics and other disciplines who want to perform data analysis using linear and nonlinear regression and multilevel models. Introduction to and demonstration of wide variety of models to illustrate how to fit these models using freely available software packages. Topics include regression, poststratification, matching, regression discontinuities, and instrumental variables, as well as multilevel logistic regression and missing-data imputation. Practical tips regarding building, fitting, and understanding models provided. S/U or letter grading.


207. Statistical Learning with Sparsity. (4) Lecture, three hours. Study of methods that exploit sparsity to help recover underlying signal in data. S/U or letter grading.


216. Social Statistics. (4) Lecture, three hours. Preparation: some knowledge of basic calculus and linear algebra. Requisites: courses 100A and 100B, or 101B and 101C, or one course from 10, 11, 12, 13 and one upper-division statistics course using regression. Designed for social sciences graduate students and advanced undergraduate students seeking training in data issues and methods employed in social sciences. Concurrently scheduled with course C216. S/U or letter grading.

218. Statistical Analysis of Networks. (4) Lecture, three hours. Limited to graduate students. Introduction to analysis of social structure, conceived in terms of social networks and concepts from social work theory and mathematical representation of social concepts such as role and position. Use of graphical representations of network information. S/U or letter grading.

221. Time-Series Analysis. (4) Lecture, four hours. Recommended: some experience in statistical computing. Exploration of methods used in analysis of numerical time series data. Topics include temporal and frequency analysis, wavelets, and chaos. Implementation of discussed techniques using real data sets. Letter grading.

222. Spatial Statistics. (4) (Same as Geography M205A and M205B.) Lecture, three hours. Limited to graduate students. Survey of modern methods used in analysis of spatial data. Implementation of various techniques using real data sets from diverse fields, including neuroimaging, geology, seismology, demography, and environmental sciences. S/U or letter grading.


M231A. Pattern Recognition and Machine Learning. (Formerly numbered M231.) (Same as Computer Science M216.) Lecture, discussion, one hour. Designed for graduate students. Fundamental concepts, theories, and algorithms for pattern recognition and machine learning that are used in computer vision, image understanding, computer vision, pattern recognition, speech recognition, data mining, statistics, and computational biology. Topics include Bayesian decision theory, parametric and nonparametric estimation, unsupervised learning, convexity (VC-dimension, MDL, AIC), PCA/IQA/ICA, MDS, SVM, boosting. S/U or letter grading.

231B. Methods of Machine Learning. (Formerly numbered 270.) Lecture, three hours; discussion, one hour. Recommended requisites: courses 208, M231A. Introduction of mathematical tools for analysis of learning with neural networks and graphical models with latent variables. S/U or letter grading.

231C. Theories of Machine Learning. (Formerly numbered 290C.) Lecture, three hours. Recommended requisites: courses 200A, 231B. Introduction to many useful nonparametric techniques such as nonparametric density estimation, nonparametric regression, and high-dimensional statistical modeling. Some semiparametric techniques and functional data analysis. Letter grading.


M232B. Statistical Computing and Inference in Vision and Cognition. (4) (Same as Computer Science M216B.) Lecture, three hours. Preparation: basic statistics, linear algebra (matrix analysis), computer vision. Introduction to broad range of algorithms for statistical inference and learning that could be used in vision, pattern recognition, speech, bioinformatics, data mining. Topics include Markov chain Monte Carlo computational methods, belief propagation, partial differential equations. S/U or letter grading.

232C. Cognitive Artificial Intelligence. (4) Lecture, three hours. Recommended requisites: courses M232A, M232B. Demonstration of how to build artificial intelligence by following principles of human intelligence and technology, including learning from small data, expressing causality of physical world, and inferring mental states of others for intuitive social interactions. Draws from statistical modeling, cognitive science, artificial intelligence, computer vision, and robotics. S/U or letter grading.

M235. Modern Environmental Statistics. (4) (Formerly numbered 235.) (Same as Environment M235.) Seminar; three hours. Graduate students. Survey of recent advances in theory and methods of environmental statistics. Topics include current topics and problems, probability, decision theory, hypothesis testing, developing and assessing regression models, multidimensional data exploration, time series analysis, and spatial modeling. Draws upon relevant experiences and literature. Performance of analyses of real-world datasets. Small groups complete and present project analyzing relevant dataset of choice. S/U or letter grading.

236. Introduction to Bayesian Statistics. (4) Lecture, three hours; discussion, one hour. Recommended requisite: course 200A or 208B. Designed for graduate students. Introduction to statistical inference based on use of Bayes theorem, covering foundational aspects, computational, and application issues. Topics include Stein paradox, nonparametric Bayes, and statistical learning. Examples of applications vary according to interests of students. Concurrently scheduled with course C180. S/U or letter grading.

238. Vision as Bayesian Inference. (4) Lecture, three hours. Requirements: course 100A or 200A. Formulation of vision as Bayesian inference and development of algorithms for designing artificial vision systems. Applied to statistics, they define ideal observer models that can be used to model human performance and serve a benchmark. S/U or letter grading.


C247. Statistical Model Selection. (4) Lecture, three hours. Preparation: basic knowledge of calculus, linear algebra, and computer programming. Modern methods for constructing and evaluating statistical models, including non-Bayesian and Bayesian modeling approaches. Discussion of theoretical parts and data analysis. Letter grading.

CM248. Applied Sampling. (4) (Same as Epidemiology M216D.) Lecture, three hours; discussion, one hour. Designed for upper-division and graduate stu-
and, in general, to every problem where data are ob-
ology, economics, geography, waste management, hydrology, traffic, air and water pollution, epidemi-

M250. Statistical Methods for Epidemiology. (4) (Same as Epidemiology M211.) Lecture, four hours. Preparation: two terms of statistics (such as Biostatistics 100A, 100B). Enforced requisites: Epidemiology 200B, 200C. Concepts and methods tailored for anal-
ysis of epidemiological data, with emphasis on tabular and graphical techniques. Expansion of topics intro-
duced in Epidemiology 200B and 200C and introduc-
tion of new topics, including principles of epidemi-

M254. Statistical Methods in Computational Biolog-
y. (4) (Same as Bioinformatics M202 and Biomathe-
matics M271.) Lecture, three hours; discussion, one hour. Preparation: elementary probability concepts. Requisite: course 100A or 100A and Biostatistics M221. Introduction to statistical methods developed and widely applied in several branches of computa-
tional biology, such as genomic expression, sequence alignment, motif discovery, comparative genomics, and biological networks, with emphasis on under-
standing of basic statistical concepts and use of sta-
tistical inference to solve biological problems. Letter grading.

256. Causality. (4) Lecture, three hours. Preparation: prof-
ciency in basic R coding, probability theory, linear algebra, multivariate calculus, and statistics through inference and regression. Tools to pursue both theo-
retical and applied research in causality. S/U or letter grading.

C281. Introduction to Pattern Recognition and Ma-
chine Learning. (4) Lecture, three hours. Requisites: course 210B, or Biostatistics 33A. Introduction to data-
tern analysis and machine intelligence designed for.
advanced undergraduate and graduate students. Concurrently scheduled with course C216. S/U or letter grading.

271. Probabilistic Models of Visual Cortex. (4) Sem-
inai, three hours. Requisite: course 100B or Mathe-
matics 33A. Recommended: Computer Science 180. Introduction to computational models of the mammalian visual cortex, with topics in low-, mid-, and high-level vision. Discussion of relevant evidence from anatomy, electrophysiology, imaging (e.g., fMRI), and psycho-physion. Introduction to regression modeling of these phenomena, taking into account re-
cent progress in probabilistic models of computer vi-

C273. Applied Geostatistics. (4) Lecture, three hours; discussion, one hour. Geostatistics can be ap-
plied to many problems in other disciplines such as hydrology, traffic, air and water pollution, epidemi-
ology, economics, geography, waste management, forestgy, oceanography, meteorology, and agriculture and, in general, to every problem where data are ob-
erved at geographic locations. Acquisition of knowl-
edge from which can be used to create spatial data and to connect geostatis-
tics with geographic information systems (GIS). Con-
currently scheduled with course C173. S/U or letter grading.

C283. Statistical Models in Finance. (4) Lecture, three hours. Requisite: course 100B. Designed for graduate students. Statistical techniques in investment and real market data. Portfolio ma-

dgement, risk diversification, efficient frontier, single index model, capital asset pricing model (CAPM), beta of a stock, European and American op-
tions (Black/Scholes model, binomial model). Concur-
rently scheduled with course C173. S/U or letter grading.

285. Seminar: Computing for Statistics. (2 to 4) Seminar, one to three hours. Topics in various statis-
tical areas by means of lectures and informal confer-
ces with staff members. S/U grading.

M256. Seminar: Statistical Problem Solving for Pop-
bulation Biology. (2) [Same as Ecology and Evolu-
tionary Biology M256.] Seminar, two hours. Designed for graduate students. Statistical solutions to complex data analysis and/or experimental design problems encountered by biology graduate students in their own research. S/U or letter grading.

287. Seminar: Gene Expression and Systems Biolo-
y. (2) Seminar, two hours. Designed for graduate stu-
dents (open to undergraduate students with consent of instructor). High-throughput technologies such as genomic sequencing, microarray gene expressions, Chromatin-ImmunoPrecipitation DNA chip (ChIP-
chip), and other techniques (M/MS). Biologists and scient-
ists are concerned with general germ cell, and pathway data at rates far beyond imagination one de-
cade ago. Such gigantic volumes of data produced cannot be analyzed and understood without highly so-
phisticated computational methods guided by mathe-
atical and statistical principles. Cutting-edge gen-
omics research from statistical data analytic point of view. S/U or letter grading.

290. Current Literature in Statistics. (2) Seminar, one hour. Topics in various statistical areas by means of lectures and informal conferences with staff mem-

291SL. Service Learning and Community Learning 
Consulting. (4) Seminar, group meeting, fieldwork, two hours. Exposure to realistic statistical and scientific problems that appear in typical interac-
tions between statisticians and researchers, with lec-
tures centered around problems presented by faculty members and invited speakers from business and ac-
ademic fields. Applied regression analysis and design of experiments, together with basic statistical pro-
grands. Presentations and written reports required. S/ 
U or letter grading.

292. Graduate Student Statistical Packages Semi-
inar. (1 to 2) Seminar, two hours. Introduction to vari-
ous statistical packages. How to handle data in differ-
ent statistical software packages. Assignment of data manipulation (with treatment of missing data), general syntax of different programming languages, and good practice for writing own statistical functions. S/U grading.

294. Scientific Writing. (2) Seminar, two hours. De-
velopment of oral and written presentations of statis-
tical data. Objectives and principles of scientific writing and practice with different forms of profes-
sional writing. Includes writing student presentations of student work. S/U or letter grading.

296. Participating Seminar: Statistics. (1 to 2) Sem-
inar and discussion by staff and students. S/U grading.

297SL. Service Learning and Community Learning 
for Statistics. (2 to 4) Seminar, three hours; fieldwork, 10 hours. To further knowledge by applying what stu-
dents have learned in class to an actual service work setting under guidance of faculty mentor. Interaction with nonprofit organizations can be either on location or over the Internet. May be used for MS thesis; re-
search/paper/project required. S/U or letter grading.

375. Teaching Apprentice Practicum. (1 to 4) Sem-
inai, to be arranged. Preparation: apprentice per-
sonnel employment as teaching assistant, associate, or fellow. Teaching apprenticeship under active guid-
exate and supervision of regular faculty member re-

cponsible for course instruction. S/U grading. May be repeated for credit. S/U grading.

404. Seminar in Probability. (4) Lecture, three hours; dis-
cussion, one hour. Preparation: courses 313B, 314B. Requisites: courses 315A, 315B, or the equivalents. Prob-
ability theory, measure theory, and statistical esti-
mation. S/U or letter grading.

405. Data Management. (4) Lecture, three hours; dis-
cussion, one hour. Limited to Master of Applied Statis-
tics students. Fundamentals of statistical programming using R, C, and C++. R is currently state-of-
art for statistical computing, simula-
tion, statistical graphics, and analysis of data. C and C++ perform computations much faster, and added speed is necessary for large datasets and for high-level computations, particularly those in-
volving loops and object-oriented programming. Per-
formance of simulations and analysis of real datasets using C, C++, and R. Review of principles and tech-
niques for programming in these languages. How to use and interpret results of important functions in R packages. Statistical applications involve linear and non-linear regression, simulation and numerical aspects of data manage-
ment, numerical optimization, maximum likelihood estimation, classification, and resampling. Graphics and real examples used to illustrate techniques. Anal-
yses of both real and simulated data. S/U or letter grading.

411. Multivariate Statistical Analysis. (4) Lecture, three hours; discussion, one hour. Requisites: courses 10, 20, and 101A, or equivalent level of discipline. Lim-
ited to Master of Applied Statistics students. Offers students working knowledge of multivariate analysis under-
lying most important multivariate techniques, with overview of actual applications in various fields, and with experience in using such techniques on problem of their own choosing. Addresses underlying mathe-
matics and problems of applications. Reasonable level of competency in both statistics and mathe-
matics is required. Letter grading.

412. Advanced Regression and Predictive Model-
ing. (4) Lecture, three hours; discussion, one hour. Limited to Master of Applied Statistics students. Often we are interested in making inferences and predictions from data, either by (1) estimating particular mean-
ings of parameters of models and finding best fitting model that we can then manipulate to produce useful outputs such as predictions or counterfactual esti-
mates. Focus on what is done when linear models are not appropriate and may produce misleading esti-
mates. Generalized linear model and maximum likeli-
hood methods as essential tools all statistics students should understand. Examination of shift gears to ex-
plore regression and classification problems that have been ubiquitous in machine learning literature in recent years, with special attention to regularization and kernelized methods. S/U or letter grading.

413. Machine Learning. (4) Lecture, three hours; dis-
cussion, one hour. Limited to Master of Applied Statis-
tics students. Recommended preparation: linear al-
gebra, calculus, basic computer programming knowl-
edge. Introduction to machine learning and data
mining methods. To gain in-depth understanding of these methods, implementation of them in R, Python, and C++. S/U or letter grading.


415. Introduction to Forecasting. (4) Lecture, three hours; discussion, one hour. Limited to Master of Applied Statistics students. Designed for physical and social sciences students who are interested in using statistics and its applications for forecasting and data-driven decisions and for life sciences and medical school students who are interested in modeling of historical data to predict outcomes. Introduction to state-of-art statistical methods that rely on historical data collected in past to forecast future outcomes. Coverage of models used for forecasting only one measurement horizon and how to forecast several types of measurements simultaneously. S/U or letter grading.

416. Applied Geostatistics. (4) Lecture, three hours; discussion, one hour. Requisites: courses 401, 402, 403. Limited to Master of Applied Statistics students. Introduction to fundamentals of analysis of types of spatial and spatial-temporal datasets frequently arising in geostatistical problems. Geostatistical data arise commonly in every science, wherever spatial and spatial-temporal data are obtained. Examples include geology, hydrology, traffic, air and water pollution, epidemiology, economics, geography, waste management, forestry, biostatistics, meteorology, and agriculture. Theory and modern methods for analyzing both lattice and point process data using R, and student performances of their own analysis of geostatistical datasets involving variogram modeling, kriging, model fitting, and estimation using maximum likelihood and nonparametric methods. S/U or letter grading.


419. Experimental Design. (4) Lecture, three hours; discussion, one hour. Requisites: courses 402, 403. Limited to Master of Applied Statistics students. Fundamentals of designing experiments to gain maximal information while minimizing costs. Topics include role of randomization and blocking, comparing one or more treatments, randomized blocks, factorial design, Latin square designs, fractional factorial designs, response surface designs. S/U or letter grading.

420. Causal Statistical Science Practice. (4) Lecture, three hours; discussion, one hour. Requisite: course 400. Recommended requisites: courses 401, 402, 403, 404, 405. Limited to Master of Applied Statistics students. Variety of design and analysis experiences, including experiments, matching, regression, panel methods, difference-in-differences, synthetic control methods, instrumental variable estimation, regression discontinuity design, and sensitivity analysis. Basic skills from probability and statistics. Applications drawn from various fields including political science, public policy, economics, and sociology. Skills developed apply to any discipline in which investigators seek to make causal statements but cannot fully randomize treatment. Letter grading.

421A. Introductory Statistical Communication. (4) Lecture, three hours; discussion, one hour. Designed to improve verbal and written communication skills related to various ways in which statistics is used in workplace. Directed toward students who are not experts in English communication or for whom English is not their language. Letter grading.

421B. Advanced Statistical Communication. (4) Lecture, three hours; discussion, one hour. Designed to improve verbal and written communication skills related to various ways in which statistics is used in workplace. Directed toward students who are fluent in English and are already proficient in verbal and written communication of scientific results. Letter grading.


423. Longitudinal Data Analysis. (4) Lecture, three hours; discussion, one hour. Requisites: courses 10, 20, 101A, or equivalent level of discipline. Limited to Master of Applied Statistics students. Fundamental methods in longitudinal data analysis, with examples of actual applications in various disciplines. Students gain experience in using such techniques on problems of choice. Reasonable level of competence in both statistics and mathematics required. Letter grading.

424. Teamwork and Leadership in Data Science. (4) Lecture, three hours; discussion, one hour. Requisites: courses 10, 20, 101A, or equivalent level of discipline. Limited to Master of Applied Statistics students. Students learn how to lead, manage, negotiate, and participate in teams of data scientists. Students present statistical results for audiences ranging from business leaders to media outlets to academic statisticians. Letter grading.

425. Text Mining. (4) Lecture, three hours; discussion, one hour. Limited to Master of Applied Statistics students. Covers use of text mining tools for purpose of data analysis. Covers basic text handling, natural language processing, and statistical modeling on top of textual data. Letter grading.

495A. Teaching College Statistics. (2) Seminar, two hours; intensive training at beginning of Fall Quarter. Required of all potential departmental teaching assistants and new PhD students. Practical and theoretical issues in teaching of statistics. S/U grading.

495B. Teaching College Statistics. (2) Seminar, two hours. Weekly discussion and intensive training for all first-year teaching assistants that addresses practical and theoretical issues in using technology to teach statistics, including use of statistical software as education tool. S/U grading.

496. Statistics Internship. (2 to 4) Tutorial, four hours; field work, two hours. Under faculty supervision, production of substantial paper relating to or arising from internship. S/U or letter grading.

497. Directed Individual Study or Research. (2 to 8) Tutorial, to be arranged. Supervised individual reading and study on project approved by a faculty member. May be repeated for credit. Letter grading.

498. MAS Thesis Research. (2 to 8) Tutorial, four hours. Research on thesis project for MAS students. Project should be original analysis of data that solves pressing problem and is done typically in conjunction with an industry partner. May be repeated for credit with permission from program chair or instructor. S/U grading.

598. MS Thesis Research. (2 to 12) Tutorial, to be arranged. Designed for second-year statistics MS students. Study and research for MS thesis. May be repeated for credit. S/U grading.

599. PhD Dissertation Research. (2 to 12) Tutorial, to be arranged. Preparation: advancement to PhD candidacy. Study and research in which dissertation is written. May be repeated for credit. S/U grading.
Additional in-depth elective courses are offered in collaboration with other departments.

For more details on the Department of Surgery and courses offered, see the department website.

**Surgery**

**Lower-Division Courses**

19. Fiat Lux Freshman Seminars. (1) Seminar; one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating the contributions of diverse cultures and experiences, reflecting the human experience. Students engage in theatrical performance for the community.

99. Student Research Program. (1 to 2) Tutorial (supervised research or other scholarly work), three hours per week per unit. Entry-level research for lower-division students under guidance of faculty mentor. Students must be in good academic standing and enrolled in minimum of 12 units (excluding this course). Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP grading.

**Upper-Division Courses**

188SA. Individual Studies for USIE Facilitators. (1) Tutorial, to be arranged. Enforced prerequisite: Honors College 101E. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor to discuss selected USIE seminar topic, conduct preparatory research, and begin preparation of syllabus. Individual contract with faculty mentor required. May not be repeated. Letter grading.

188SB. Individual Studies for USIE Facilitators. (1) Tutorial, to be arranged. Enforced prerequisite: course 188SA. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor to finalize course syllabus. Individual contract with faculty mentor required. May not be repeated. Letter grading.

188SC. Individual Studies for USIE Facilitators. (2) Tutorial, to be arranged. Enforced prerequisite: course 188SB. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor while facilitating USIE 88S course. Individual contract with faculty mentor required. May not be repeated. Letter grading.

199. Directed Research in Surgery. (2 to 8) Tutorial, two hours. Limited to juniors/seniors. Supervised individual research or investigation under guidance of faculty mentor. Culminating paper required. May be repeated for credit. Individual contract required. P/NP or letter grading.

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**Theater**

**School of Theater, Film, and Television**

303 East Melnitz Building
Box 951622
Los Angeles, CA 90095-1622

**Theater**

310-825-7008
Department e-mail
Dominic A. Taylor, MFA, Chair

**Professors**

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Jeffrey A. Burke, MS, MFA, in Residence
Myung Hee A. Cho, MFA
Hanay L. Geogamah, BFA
Michael J. Hackett, PhD
Chrisi Karvonides-Dushenko, MFA
Suk-Young Kim, PhD
Brian E. Kite, MFA

Sean A. Metzger, PhD
Deborah Nadozolman Landis, PhD
Dominic A. Taylor, MFA
Edit E. Villareal, MFA

**Professors Emeriti**

Alan M. Armstrong, MFA
Sue-Ellen Case, PhD
Patricia M. Harter, PhD
Robert H. Hethmon, PhD
Neil P. Jampolis, BFA
Anna Krajewska-Wieczorek, PhD
Michael S. McLain, PhD
Joanne T. McMaster, MFA
Rich S. Rose, MFA
Mel Shapiro, MFA
Carol J. Sorgenfrei, PhD
José Luis Valenzuela, BA
William D. Ward, MFA
William T. Wheatley, PhD
Margaret L. Wilbur, MFA

**Associate Professors**

Thomas K. O’Connor, MFA
Joseph M. Olivier, MFA

**Assistant Professors**

Michelle L. Carrieger, PhD
Sylvan M. Oswald, MFA
Marke A. Splint, MFA

**Senior Lecturer SOE**

Thomas J. Orth, Emeritus

**Lecturers**

Silvia Baker
Cheryl Baxter-Ratiff
Mark Bennett
Scott W. Brick
Elizabeth A. Brohm
Emily H. Chase
Ross A. Chitwood
Lap-Chi Chu
Robert Clare
Sara R. Clement, MFA
Daniel F. Cornigan, MFA
Francois-Pierre Couture, MFA
Tori L. Dager, MFA
Andrew S. Daizell, MFA
Perry M. Daniel, MFA
James E. Darrah
Michael F. Donovan, BA
Kitty Doris-Bates
Joshua Epstein
Anthony T. Fanning
Thomas H. Fitzgerald
Gina A. Flanigan
Anna P. Fox, MFA
Brian L. Gale
John A. Garofolo
Alexis C. Gibes
Jill M. Goddard
David M. Gorshein, PhD
Evelyn J. Halus
Denise J. Hudson
Patrick M. Hurley, MFA
Yuki Iizumihara, MFA
Alexis S. Jacknow
Jon V. Jory
Colleen M. Kleppinger
Hana S. Kim, MFA
Jessica R. Kubzansky, MFA
Andrew H. Leung, BFA
Israel Lopez, MFA
Sara A. Lyons
Lea M. Madda
Melanie J. Mahoney
Leonora Martino, MA
Jeffrey Maynard, BA
Mark D. Measures
Roderick B. Mengiels, MFA
Cricket S. Myers

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**Scope and Objectives**

The Department of Theater offers comprehensive training for the profession, including study of theater’s long history and rich literature. Drawing on this vibrant heritage, the curriculum promotes an awareness of theater as a global practice embodying the contributions of diverse cultures and exploring theater and performance as a form for reflecting the human experience. Students engage in theatrical performance in a community where creativity and critical thought combine in the exploration of the artistic and intellectual challenges inherent in theater making.

Manifesting talent and promise as well as representing a wide range of backgrounds and interests, prospective students are selected by the faculty through auditions and interviews in cities throughout the U.S. At the undergraduate level, students receive education in acting, design and production, directing, formal and textual analysis, musical theater, performance studies, and playwriting, all within the rigor-
The Theater BA

Capstone Major

The Theater BA provides students with a liberal arts education by combining critical study of theater and performance with experiential practice in one or more of its component parts. Students explore acting, design, directing, and preprofessional performance. The Theater BA major consists of Theater 101A, 101B, one course from 102A through 113, 131C or 163C or 180 (capstone seminar), one course from 150, 173A, 173B, 174A, or 174C (4 units), and 34 upper-division theater elective units. Up to 8 units of upper-division credit in the Department of Film, Television, and Digital Media may be included in the 34-unit theater elective requirement.

The Major

Majors wishing to pursue one of the emphases in the areas of acting, design and production, directing, musical theater, or playwriting are expected to complete a number of regularly offered elective courses. Students who do not select an emphasis or who wish to pursue an individualized plan are expected to meet with the undergraduate vice chair at the beginning of each year to plan their course of study.

Theater Minor

The Theater minor is designed for students who wish to augment their major program of study with a series of courses that promote the study of theater as a global phenomenon for reflecting the human experience. The minor consists of a selection of lower-division courses that expose students to the fundamentals of theatrical production, as well as acting, writing, and directing. Upper-division courses offer more focused study of those areas, as well as theater design, history, education, and theater of non-Western cultures.

To enter the minor, students must be in good academic standing (minimum 2.0 grade-point average), have completed at least one approved UCLA theater minor course with a grade of C or better, and file a petition at the Student Services Office, 103 East Melnitz Building, 310-206-8441. All degree requirements, including the specific requirements for this minor, must be fulfilled within the unit maximum set forth by each student's school or College. All applicants must meet the admission standards of UCLA and the departmental screening process. Applications are accepted only in November for admission to the following fall quarter. There are no mid-year admissions. Students must submit required supplemental materials directly to the Theater Department. If requested by the department, applicants must also sign up for an audition and/or interview online. There is a $90 fee for all interviews/auditions.

Applicants interested in one of the emphases in acting, design and production, integrated studies (including critical studies, directing, and playwriting) or musical theater may submit materials for consideration in that area.

Preparation for the Major

Required: Theater 11, 12, 13, 14A, 14B, 14C, 50 (must be taken for 4 units total).

The Major

Required: Theater 101A, 101B, one course from 102A through 113, 131C or 163C or 180 (capstone seminar), one course from 150, 173A, 173B, 174A, or 174C (4 units), and 34 upper-division theater elective units. Up to 8 units of upper-division credit in the Department of Film, Television, and Digital Media may be included in the 34-unit theater elective requirement.

Majors wishing to pursue one of the emphases in the areas of acting, design and production, directing, musical theater, or playwriting are expected to complete a number of regularly offered elective courses. Students who do not select an emphasis or who wish to pursue an individualized plan are expected to meet with the undergraduate vice chair at the beginning of each year to plan their course of study.

Graduate Study

The Department of Theater offers a Master of Fine Arts (MFA) degree in Theater, and Candidate in Philosophy (CPhil) and Doctor of Philosophy (PhD) degrees in Theater and Performance Studies.

Undergraduate Study

The Theater major is a designated capstone major. Theater capstone courses represent independent student scholarship and/or a high degree of artistic achievement in each of the undergraduate areas. Capstone courses are intended to be the culmination of all the broad educational courses and core foundational courses that a student has taken. Group participation in the creation and production of student projects is core to the curriculum.

Theater majors. Introduction to basic music theater dance technique. Each course may be repeated once for credit. Letter grading.

2A. Tai Chi. (1) Studio. Two to four hours. Emphasizes proper form, etiquette as coextensive with training, and other values that sustain physical practice over lifetime. Actors increase focus, enhance discipline, cultivate internal energy, and relax mind and body. Demonstration of how each tai chi movement works in self-defense situation. Letter grading.

2B. Tai Chi II. (1) Studio. Two to four hours. Requisite: course 2A. Designed for Theater majors. Reviews, refines, and advances work of course 2A, introducing new forms, and delving more deeply into practice of Yang-style tai chi. Courses in performance practice continuum emphasize proper form, etiquette, and other values that sustain practice over lifetime. May be repeated once for credit. Letter grading.

3. Aikido. (1) Studio, two to four hours. Designed for Theater majors. Introduction to basic stance, throws, and pins of 20th-century martial art, Aikido. Courses in performance practice continuum emphasize proper form, etiquette, and other values that sustain practice over lifetime. May be repeated twice for credit. Letter grading.

4. Aikido 2. (1) Studio, two to four hours. Designed for Theater majors. Introduction to basic stance, throws, and pins of 20th-century martial art, Aikido. Courses in performance practice continuum emphasize proper form, etiquette, and other values that sustain practice over lifetime. May be repeated twice for credit. Letter grading.

5. Aikido 3. (1) Studio, two to four hours. Designed for Theater majors. Introduction to basic stance, throws, and pins of 20th-century martial art, Aikido. Courses in performance practice continuum emphasize proper form, etiquette, and other values that sustain practice over lifetime. May be repeated twice for credit. Letter grading.
11. Approaches to Interpretation of Theater and Performance: Global Perspective. (5) Seminar, four hours. Introduction to basic methods of interpretation in theater and performance throughout world. Topics illustrated by faculty members and guest speakers, visits to off-campus theaters, and reading from contemporary plays. Letter grading.

12. Introduction to Performance. (4) Lecture, two hours; studio, four hours. Investigation of phenomenon of performance and role of performer in theatrical event, including interpretation of drama through performance. Examination of various forms of theatrical performance and styles of expression, and development of acting, voice, and movement skills. Letter grading.

13. Play Reading and Analysis. (5) Lecture, three hours. Provides base for subsequent study in theater. Development of techniques of play reading and habits of scholarship useful to further study in each of theater's subdisciplines, including acting, directing, design, playwriting, and critical study. Letter grading.

14A-14B-14C. Introduction to Design. (5–5–5) Lecture, three hours; studio, six hours. Exploration of visual and spatial aspects of design. Study of styles and techniques of design, collaborative role of designer, principles of design for scenery, lighting, costumes, and sound. Both technical and aesthetic groundwork for further study in lettering. Letter grading.

15. Introduction to Directing. (4) Lecture, two hours; studio, four hours. Investigation of role of director in theatrical production and theories of play direction, with emphasis on analysis and interpretation of dramatic script and its realization in production. Letter grading.

16. Introduction to Dance. (3) Lecture, three hours. Examination of styles and forms of dance, their roots, and historical development. Letter grading.

17. Introduction to Film. (3) Lecture, three hours. Exploration of basic principles and techniques of film and television production. Letter grading.

18. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of critical and thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

20. Acting Fundamentals. (4) Studio, four hours. Introduction to interpretation of drama through text of actor. Development of individual insights, skills, and disciplines in presentation of dramatic material to audiences. P/NP or letter grading.


23A. Introduction to Musical Literacy for Singing Actors. (2) Formerly numbered 23B.) Studio, three hours. An introduction to singing musical notation or vocal performance. Emphasis on developing vocal technique: breathing, tone production, and coordination of body and mind. Exploration of use of rhythm to expand movement potential of actors and relevant use of visual arts and animal studies to character development and to expansion of movement potential. P/NP or letter grading.

24A. Voice in Performance. (3) Studio, three to four hours. Development of vocal technique for stage, with emphasis on resonance, range, power, and development of physiological foundation for subsequent training. Letter grading.

24B. Voice in Performance. (2) Studio, three to four hours. Development of voice and speech techniques for stage. Lecture, three hours. Requisite: course 24A. Continuation of course 24A, with greater emphasis on group and/or solo performance projects that present targeted vocal and textual challenges. Letter grading.

24C. Voice and Speech I. (1) Studio, three to four hours. Development of voice and speech techniques for stage. Lecture, three hours. Requisite: course 24A. Continuation of course 24A, with greater emphasis on group and/or solo performance projects that present targeted vocal and textual challenges. Letter grading.

25. Articulation and Body. (2) Formerly numbered 25A.) Studio, three to four hours. Study of basic kinesiology principles of body in performance. Includes strategies of movement initiation and organization, as well as their permanence and movement scores to support actor's craft. Letter grading.

26. Alexander Techniques. (2) Studio, three hours. Study and practice in Alexander techniques as method of developing balance, poise, and coordination of body and mind. Exploration of use of rhythm to expand movement potential of actors and relevant use of visual arts and animal studies to character development and to expansion of movement potential. P/NP or letter grading.

27. Preparation to Standup Comedy. (4) Studio, three to four hours. Exploration of many aspects of comedy using American vaudeville traditions, acts, and performers as historical basis to experience importance of rhythm, timing, delivery, speech, and body language. Students will find value in improvisation/imagination as well as innovative writing skills in all comic forms, to discover how comedy draws from so many forms, including music/songs, stand-up comedy, clown material, dialect, design, and tumbling/stunts, and to build overall confidence/ease in comic performance skills. P/NP or letter grading.

28A-28F. Acting, Voice, and Movement Workshops I. (2 each) Studio, three to six hours (28A-28D) and six hours (28E-F). Study of beginning acting technique, scene study, and development of voice and movement skills. Each course may be repeated for maximum of 12 units. Letter grading.

30. Dramatic Writing. (4) Studio, three hours. Intended for Theater minors and other nonmajors. Exploration and development of creative writing skills for one or more of various forms of entertainment media. May be repeated for credit.


35A. Group Singing Techniques. (1) Studio, three hours. Requisite: 24A. Introduction to singing techniques, with emphasis on bel canto training. Exploration of how singing voice works and how to achieve optimal vocal sound and musically while preserving vocal health. Letter grading.

35B. Advanced Group Singing Techniques. (1) Studio, three hours. Requisite: course 35A. Advanced singing techniques, focusing on strategies for producing consistently dynamic, efficient, and musical vocal sound, and how to build stamina and range while preserving vocal health. Letter grading.

50. Theater Production. (1 to 2) Laboratory, three to six hours. Laboratory experience in various aspects of theater production, including stage management or technical management. May be repeated for maximum of 8 units. Letter grading.

72. Production Practice in Theater, Film, Video, and Digital Media. (1 to 8) Studio, three hours. Exploration of various aspects of production and postproduction practice for entertainment media, including theater, film, video, and digital media. May be taken for maximum of 8 units. Letter grading.

95. Introduction to Community or Corporate Internships in Theater, Film, and Television. (2 to 4) Tutorial, six to 12 hours. Limited to freshmen/sophomores. Internship at various theaters, studios, or entertainment organizations accentuating creative contributions, organization, and work of professionals in various specialties. Students meet on regular basis with faculty member and provide periodic reports of experience. May be repeated for maximum of 4 units. Individual contract with supervising faculty member required. P/NP grading.

98. Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to lower-division lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

99. Student Research Program. (1 to 2) Tutorial (supervised research or other scholarly work), three hours. Open to undergraduate students. Supervision of lower-division students under guidance of faculty mentor. Students must be in good academic standing and enrolled in minimum of 12 units (excluding this course). Individual contract with supervising faculty member. May be repeated. P/NP grading.

101A. Global Histories of Theater and Performance I. (5) Lecture, three hours; discussion, one hour. Introduction to histories of theater and performance from across world, with emphasis on ancient world through 18th century. Introduction to theories and historiographical research methods. Letter grading.

101B. Global Histories of Theater and Performance II. (5) Lecture, three hours; discussion, one hour. Introduction to histories and historiographies of theater and performance from across world, with emphasis from 18th century through 21st century. Introduction to representational modalities from melodrama to performance art and contemporary approaches from Marxism to poststructuralism. Letter grading.

102A. Theater of Japan. (5) Lecture, three hours. Exploration of major theater traditions of Japan from emergence of earliest theatrical activity to present, including investigation of Noh, Bunraku, and Kabuki performance traditions. Letter grading.

102C. Cross-Cultural Currents in Theater. (5) Lecture, three hours. Exploration of interculturalism in the artistic focus on 20th century and its contemporary implications of borrowing from other cultures. Letter grading.

110. African American Theater History: Slavery to Mid-1800s. (4) (Same as African American Studies M110.) Lecture, three hours. Designed for juniors/seniors. Exploration of extant materials on history and literature of African American theater from its beginning in the pre-Civil War period to 1865. P/NP or letter grading.

111. African American Theater History: Minstrel Stage to Rise of American Musical. (4) (Same as African American Studies M110B.) Lecture, three hours. Designed for juniors/seniors. Exploration of extant materials on history and literature of theater as developed and performed by African American artists in America from minstrel stage to rise of American musical. Letter grading.


117. Modern African American Drama: Harlem Renaissance to Black Arts Movement. (4) (Same as African American Studies M117.) Lecture, three hours. Survey and examination of African American plays from 1920s until birth of modern civil rights era. Examination of sociocultural context out of which plays were created and critical essays that illustrate development of African American playwrights and their significant involvement in creation of diversified American theatrical traditions. Letter grading.


131. Israel and Palestine: Communities, Conflicts, Cultures, and Arts in Middle East. (4) Lecture, three hours. No background on or prior interest in history or region of arts required. Lecture is variously known by names of Zion, Holy Land, Palestine, and Israel is not
just one place. It is a realm of imagination, envisioned and re-envisioned throughout history. It is at once real and surreal, study and fragile, all-enduring and ephemeral. Examination of selected works of literature, performance, visual arts, film, and media by Israeli and Palestinian artists, as well as Western artists with interest in region. Looking beyond headlines and facile cultural clichés for deeper insights arts offer can influence into cultural conflict and community at large, to emerge with new options. Letter grading.

101J. Contemporary Black Theater: Modern Civil Rights Era to Black Lives Matter and Beyond. (4) (Same as African American Studies M101J.) Lecture, three hours. Examination of black theater from the 1960s of the African American Arts Movement until today. Exploration of social and historical implications of work, and aesthetic experimentation of contemporary African American playwrights and movements.

104D. New Playwrights, New Playwriting. (6) Seminar, three hours. Required for students in playwriting sequence. How to approach diverse range of new plays currently changing landscape of theater. Consideration of look at plays written in last 15 years and how they reflect society. Reading of plays to build skills of manuscript analysis; development of working vocabulary of dramaturgical concepts; exploration of different structures and acting, and the development that playwrights of today draw from. Letter grading.

C104E. History of Design Décor Part I: Architecture and Décor—Antiquity to Early Neoclassical. (4) Lecture, four hours. Requisites: courses 14A, 14B, 14C. Study of architectural and interior décor as manifestation of cultural, social, economic, and political influences to provide historical framework for design of scenery, costumes, and lighting for theater, film, and television. May be repeated once for credit. Concurrently scheduled with course C404E. Letter grading.

C104F. History of Design Décor Part II: Architecture and Décor—Industrial Revolution to 21st Century. (4) Lecture, four hours. Requisites: courses 14A, 14B, 14C. Study of post-Renaissance architectural and interior décor as manifestation of cultural, social, economic, and political influences to provide historical framework for design of scenery, costumes, and lighting for theater, film, and television. May be repeated once for credit. Concurrently scheduled with course C404F. Letter grading.

C104G. History of Design for Performance Production Part I: Historic Costume from Prehistoric to Neoclassical. (4) Lecture, four hours. Requisites: courses 14A, 14B, 14C. Study of historic costume as manifestation of cultural, social, economic, and political influences to provide historical framework for design of costumes for theater, film, and television. Survey of history of Western costume and civilian attire. May be repeated once for credit. Concurrently scheduled with course C404G. Letter grading.

C104H. History of Design for Performance Production Part II: Historic Costume from Neoclassical to 21st Century. (4) Lecture, four hours. Requisites: courses 14A, 14B, 14C. Study of historic costume as manifestation of cultural, social, economic, and political influences to provide historical framework for design of costumes for theater, film, and television. Survey of history of Western costume and civilian attire. May be repeated once for credit. Concurrently scheduled with course C404H. Letter grading.


105S. Main Current in Theater. (3) Lecture, three hours. Critical examination of leading theories of theater from 1877 to present. Study and discussion of modern styles of production. P/NP or letter grading.


107. Direction of Drama. (3) Lecture, three hours; discussion, one hour (when scheduled). Investigation of diversity in American society as manifested in dramatic works and theatrical presentations. P/NP or Letter grading.

108. Undergraduate Seminar: History and Criticism. (5) Seminar, four hours. Limited to 15 students. Selected topics in history and criticism of theater and performance. Study of how theatrical experiments originated and how they reflect audience, and their goals. Concentration on theater that regarded themselves, in some way, as experimental. Examples primarily from theaters within U.S. from 1960s to present, although examples from other countries, specifically Poland, also considered. Letter grading.

109. Art and Performance: Interdisciplinary Approach to Collections of Getty Center. (4) (Same as Honors College M120) Lecture, four hours; discussion, one hour. Drawing from objects in five major collections at the Getty Museum, focus on five parallel historical periods in which political, social, and aesthetic philosophies of age is examined in musical and dramatic performance. Letter grading.


113. Special Topics in Theater and Performance Studies. (5) Lecture, three or four hours. Consult Schedule of Class for specific period, genre, or subject to be studied in specific term. May be repeated for credit. P/NP or letter grading.

M114. Variable Topics in Performance and Disability Studies. (4) (Same as Disability Studies M114,) Seminar, four hours. Analysis and critique of depiction of disability in theater. Topics may include introduction to disability studies; race, gender, and disability; representation of disability in theater; and more. May be repeated for credit with topic or instructor change. P/NP or letter grading.


116B. Psychological Systems of Acting: Practice. (4) Studio, six hours. Requisites: courses 24A, 24B, 25. Exploration of specific physical performance techniques drawn from range of practices. Topics may include specific types of partnering, combat, martial arts, vintage dance, etc. May be repeated twice for credit. Letter grading.

118A. Creative Dramatics. (4) Lecture/laboratory, four hours. Studies of principles and procedures of improvisational approach to drama as done from children from nursery school to junior high. P/NP or letter grading.

118B. Advanced Creative Dramatics. (2 to 4) Lecture, four hours; other, to be arranged. Practical application of creative drama process. Exploration of interpersonal relationships of art to traditional disciplines of learning. May be repeated once for credit. P/NP or letter grading.

118C. Interactive Theater. (4) Laboratory, four hours. Active, problem-solving process of theater exercises and games designed to examine racial stereotypes, cross-sex harassment, gender identity, and other issues that divide members of campus community, as well as issues that divide campus from Los Angeles community. Selected to increase social and political awareness of problems and ideas fundamental to intercultural development, exercises and games nurture skills and attitudes useful in facilitating discussions between actors and audience participants. Use of techniques of sense awareness, pantomime, improvisation, and characterization. Letter grading.

118D. ArtsBridge Teaching Practicum. (4) Lecture, four hours. Requisites; courses 118A, 118B. Development of K-12 teaching materials and performance with specific core curriculum. Collaboration with classroom teacher to identify core subject to be taught. Language arts, science, history, mathematics, and social studies. Development and evaluation of evaluation tools to measure effectiveness of incorporating theater materials into curriculum. Weekly meetings to discuss teaching strategies and prepare written lesson plans that incorporate California Teaching Content Standards, objectives, motivation, detailed implementation of lesson plan, and ideas for assessment. Classroom work culminates in thorough documented final project by ArtsBridge student, classroom teacher, and UCLA faculty members. P/NP or letter grading.

120A-120B. Acting and Performance in Film. (5–5) Lecture, six hours. Exploration of performance in film. Through screenings of performance-driven films, class discussion, and acting exercises, examination of methods, styles, and performances of some of world’s most highly regarded actors and their work. P/NP or letter grading.

120C. Acting and Performance in Film. (5) Lecture, six hours. Exploration of acting and performance in film. Through screenings of performance-driven films, class discussion, and acting exercises, examination of methods, styles, and performances of some of world’s most highly regarded actors and their work. Letter grading.

121. Acting Workshop. (2) Studio, to be arranged. Requisite: course 20. Courses 160, 163A, 163B, and 163C may be taken concurrently. Workshop that provides students with opportunity to rehearse, perform, and criticize scenes. May be repeated once for credit. P/NP or letter grading.

122. Character Development through Makeup and Hair Design. (2) Studio, four hours. Examination of importance of makeup and hair design in film. Hands-on involvement in hair and makeup in fashion and motion pictures. Collaboration of makeup artists and hairstylists with costume designer, actors, production designer, and director to conceptualize people in setting. Differentiation of makeup and hairstylist roles in current film, television, and theater productions and skills needed to design makeup and hair for film and television productions. Concurrently scheduled with course C122. Letter grading.


development of scenic and techniques to realize design. Concurrently scheduled with course C444C. Letter grading.

144D. Music Technology for Sound Design. (4) Lecture, three hours; laboratory, one hour. Music for non-musicians. Overview of music, musical genres, and their structures, including music notation. Students study music production and post-production skills. Students use software to create musical ideas and sound design components. Letter grading.


C146A. Exploration of original forms of media-rich entertainment experience through lectures, presentations, and seminar participation. Students form collaborative teams to conceive and propose interactive entertainment events. C146B. Prototype development; two to five proposals to be completely defined and developed. Students form collaborative teams for further conceptual development of their project proposals. May be repeated once for credit.

147A. Drafting. (4) Studio, four hours. Development of visual communication skills through drafting. Exploration of drafting for scenic and lighting designs. May be repeated once for credit. Letter grading.

148. Special Courses in Design and Technical Theater. (4) Lecture and studio, five hours. Study and practice in selected subjects in design and technical theater. May be repeated twice for credit. P/N/P or letter grading.

149. Introduction to Design. (5) Lecture, three hours. Exploration of interpretation of drama through design, including study of styles and techniques of design, collaborative role of designer, principles of design for scenery, lighting, costumes, and sound. Both technical and theoretical groundwork for further study. Investigation of techniques for realization of designs in production. Letter grading.

150. Theater Production and Performance. (1 to 2) Laboratory, three to six hours. Laboratory experience in various aspects of theater production, including performance in project or production, stage management, member of crew, or assignment as designer or assistant on production. May be repeated for maximum of 8 units. Letter grading.

C151A. Scenic Design. (4) Lecture/studio, four hours. Requisites: courses 14A, 14B, 14C. Imaginative scene design, text analysis, metaphor, and conceptualization. Investigation of design research process, composition, and style leading to visual presentation of design. May be repeated twice for credit. Concurrently scheduled with course C451A. Letter grading.

C151B. Scenic Design for Theater. (4) Lecture/studio, four hours. Requisites: courses 14A, 14B, 14C; for transfer students: course 149. Study of costume design for proscenium, thrust, and arena configurations, set design, and technical theater. May be repeated twice for credit. Concurrently scheduled with course C451B. Letter grading.

C153C. Costume Design for Film and Television. (4) Lecture, four hours. Requisites: courses 14A, 14B, 14C; for transfer students: course 149. Study of current professional costume design and wardrobe practices in film and television, including effect of differing mediums on design choices. May be repeated twice for credit. Concurrently scheduled with course C453C. Letter grading.

C153D. Projects in Costume Design Management. (4) Lecture, three hours. Examination of professional duties of costume designers, set dressers, and supervisors, especially management of production logistics, including but not limited to budget breakdowns, creating budgets, adhering to and overseeing them, as well as set dresser training for film and television, practicing on-set protocol, breakdown of daily responsibilities, and assembling set costume kits ready for production. Practice with professional resourcefulness to move from abstract problem solving, maintaining creative and collaborative environment while adhering to logistical obstacles and tasks. Concurrently scheduled with course C453D. Letter grading.

C153E. History of Costume Design in Movies. (4) Lecture, three hours; screenings, two to six hours. History of costume design within context of 20th-century fashion and film history, including evolution of role of costume designer since early days of film industry. Role of costume designer and contribution of costume design to cinematic storytelling. Concurrently scheduled with course C453E. Letter grading.

C153F. Practice of Costume Design for Film Productions. (4) Lecture, three hours. Introduction to costume design as tool for storytelling, exploring integration of costume design and filmmaking process and what it takes to do life. Students needed to effectively costume short narrative films, including script breakdown, collaboration with directors and actors, and how to manage production challenges. Concurrently scheduled with course C453F. Letter grading.

C154A. Sound Design. (4) Lecture/studio, four hours. Requisites: courses 14A, 14B, 14C. Introduction to sound and audio in acoustic, audio, and digital domain. Study and practice for recording, editing, and creating soundscapes. May be repeated once for credit. Concurrently scheduled with course C454A. Letter grading.

C154B. Sound Design for Theater. (4) Lecture/studio, four hours. Requisites: courses 14A, 14B, 14C. Exploration of sound design for theater and techniques for mixing, reinforcement, and signal processing. Topics include use of delay, equalization, and microphone placement for theater sound reinforcement. Study of creation of sound effects, control of MIDIs, and design techniques for musical theater. May be repeated once for credit. Concurrently scheduled with course C454B. Letter grading.

C154C. Sound for Film and Television. (4) Lecture/studio, four hours. Study of current professional sound recording, reencoding, mixing, and synchronization practices for film and television. Concurrently scheduled with course C454C. Letter grading.

C155. Graphic Representation of Design: Perspective Drawing. (4) Lecture, studio, four hours. Requisites: course 147A or 147B. Introduction to use of pencil and pen to communicate scenic designs, including one- and two-point perspective, and textures. Concurrently scheduled with courses C455A. Letter grading.

C156B. Graphic Representation of Design: Multi-media Rendering. (4) Studio, four hours. Study and practice of multimedia rendering techniques as they relate to interpretation of scenic, lighting, and costume renderings, with focus on human form in space. Weekly demonstrations of wide variety of art media, including watercolor, markers, pastel, and collage rendering. May be repeated twice for credit. Concurrently scheduled with courses C456B. Letter grading.

C155C. Graphic Representation of Design: Digital Rendering. (4) Studio, four hours. Study and practice of rendering techniques for transfer students: course 147A. Study and practice in drawing of scenic renderings with combination of hand and digital rendering techniques. Coverage of rendering from life, enhancing final rendering with variety of computer-assisted formats to create polished sophisticated presentations for theater, film, and television productions. May be repeated twice for credit. Concurrently scheduled with courses C455C. Letter grading.

C155D. Graphic Representation of Design: Model Making. (4) Studio, four hours. Requisites: course 147A or 147B. Study of model representation of scenic designs from initial working prototypes to finished color models. Use of wide variety of materials and techniques for execution of model. Concurrently scheduled with courses C455D. Letter grading.

C155E. Graphic Representation of Design: Life Drawing. (4) Studio, four hours. Requisites: course 147A or 147B. Study of character design and modeling within context of human form. Concurrently scheduled with courses C455E. Letter grading.

C155F. Graphic Representation of Design: Costume Rendering. (4) Studio, four hours. Requisites: course 147A or 147B. Study of rendering theatrical costumes, with emphasis on figure, clothing, and fabrics. Concurrently scheduled with courses C455F. Letter grading.

C155G. Graphic Representation of Design: Scene Painting Techniques. (4) Studio, four hours. Requisites: course 147A or 147B. Study of scenic painting techniques and materials and their realization of color design and elevations. May be repeated once for credit. Concurrently scheduled with courses C455G. Letter grading.

C155H. Selected Topics in Graphic Representation of Design. (4) Studio, six hours. Group study of selected topics in design for theater. May be repeated once for credit. Concurrently scheduled with courses C455H. Letter grading.

C156A. Introduction to Computer-Assisted Drafting. (4) Course, four hours. Requisites: course 147A. Investigation of drafting and editing techniques, drafting floor plan sections, and elevation drawings using AutoCAD. Concurrently scheduled with course C456A. Letter grading.


C156C. Computer-Assisted Rendering. (4) Studio, four hours. Investigation of three-dimensional lighting and scenic design previsualization: wire-frame perspective drawing and photo-realistic computer ren-


160. Fundamentals of Play Direction. (5) Lecture, two hours; laboratory, four hours. Requisite: course 15 with grade of C or better. Course 121 may be taken concurrently. Basic theories of play direction and their application through preparation of scenes under rehearsal conditions. P/NP or letter grading.


163D. Directing Project for Stage. (5) Discussion, three hours; laboratory, four to eight hours. Requisites: courses 163A, 163B, 163C. Application of stage directing techniques in production of short play or project. Students direct one-act play or project. May be repeated once for credit. Concurrently scheduled with course C258D. Letter grading.

167A. Career Preparation for Acting. (2) Lecture/studio, three to four hours. Requisite: course 116B. Preparation for professional career as actor in film, television, theater, and commercials. Topics include audition preparation, resumes, agents, managers, casting directors, producers, unions, survival skills, professional development. Letter grading.

167B. Audition Preparation for Singing Actor. (2) Lecture/studio, three hours. Requisite: one course from 134A through 139F. Audition preparation for singing actor, providing various techniques to prepare for and successfully execute professional musical theater auditions. Letter grading.

170. Design and Production Project. (4) Laboratory, eight hours. Requisites: courses 14A, 14B, 14C. Experience as stage manager or designer, including participation in preparation and realization of scenic, lighting, costume, or sound designs, or stage management in production. May be repeated once for credit. Letter grading.

171A. Advanced Theater Laboratory. (1 to 4) Laboratory, to be arranged. Creative participation as actor or stage manager in public presentation of departmental productions. May be taken for maximum of 4 units. P/NP or letter grading.

171B. Advanced Theater Laboratory. (1 to 4) Laboratory, to be arranged. Creative participation in realization of production elements related to public presentation of departmental productions. May be taken for maximum of 4 units. P/NP or letter grading.

172. Production Practice in Theater, Film, Video, and Digital Media. (1 to 8) Studio, three to eight hours. Exploration and laboratory experience in one or more various aspects of production and postproduction practice for entertainment media, including theater, film, video, and digital media. May be repeated for maximum of 24 units. Letter grading.

173A. Design Assignment: Assistant Designer. (2) Studio, six hours. Requisites: courses 14A, 14B, 14C. Laboratory experience as assistant designer, including participation in preparation and realization of scenic, lighting, costume, or sound designs. May be repeated twice. Letter grading.

173B. Production Design Assignment: Designer. (2) Studio, six hours. Requisites: courses 14A, 14B, 14C. Laboratory experience as designer, including participation in preparation and realization of scenic, lighting, costume, or sound designs. May be repeated twice. Letter grading.


174B. Project in Stage Management. (3) Studio, nine hours. Requisite: course 174A. Laboratory experience in professional duties of assistant stage manager, including participation in preparation and performance phases of productions. May be repeated once for credit. Letter grading.

174C. Project in Stage Management. (4) Studio, 12 hours. Requisite: course 174A. Laboratory experience in professional duties of stage manager, including participation as stage manager in preparation, rehearsal, and performance phases of productions. Problems of unions, organization, scheduling, and responsibilities of lengthly run. May be repeated three times for credit. Letter grading.

174D. Advanced Stage Management Techniques. (2) Lecture, two hours; studio, two hours. Requisites: courses 147A, 174A. Professional duties of stage management. Practical training, including paper techniques, dry techniques, cue 2 cue, pre-show setup, performance reports, and quick change rehearsals. Letter grading.

175A-175C. Summer Theater Workshops. (4 or 8 each) Laboratory, 12 to 24 hours. Participation in various aspects of theater production and performance. Offered in summer only. Letter grading.

175B. Summer Theater Workshop. (1 to 4) Laboratory, three hours. Participation in various aspects of theater production and performance. Offered in summer only. Letter grading.

C176A-C176B-C176C. Production Practice in Theater / 767 Emerging with Technologies I, II, III. (4–4–4) Studio/laboratory, four to six hours. Collaborative creative and technical development of all aspects of the production incorporating emerging and/or advanced technologies, culminating in rehearsal and public presentation. Offered as series of up to three courses in cases where multiple quarters are needed to prepare production. Concurrently scheduled with course C476A-C476B-C476C. Letter grading.


M178. Film and Television Acting Workshop. (2) (Same as Film and Television M177.) Laboratory, four hours. Workshop providing opportunities for students to rehearse, perform, and evaluate scenes. Three different production styles to which performers may need to adjust are (1) preproduction rehearsals with director, (2) single-camera experience, and (3) multiple-camera experience. May be repeated twice for credit. Letter grading.

180. Senior Project. (4) Lecture or studio, three hours. Requisites: courses 101A, 101B, 101C. Preparation of conceptual or creative project to provide culminating experience in production of creative or research work. May be repeated twice for credit. Letter grading.

181. Career Development for Actors. (2) Lecture, three hours; fieldwork, three hours. Limited to seniors. Study of business practices, career entry, and development for actors. P/NP or letter grading.

C185A. Role of Producer in Professional Theater. (2) Lecture, three hours. Requisites: courses 101A, 101B, 101C. Preparation of conceptual or creative project to provide culminating experience in production of creative or research work. May be repeated twice for credit. Letter grading.


M187. Art Alive: Art and Imagination in Museums. (4) (Same as Honors Collegium M116.) Seminar, four hours. Offered in collaboration with Los Angeles County Museum of Art (LACMA). Interpretation of art in collaboration through the lens of art, history, and music. Research into history and art history and production of creative performance piece required. P/NP or letter grading.


198SB. Individual Studies for USIE Facilitators. (1) Tutorial, to be arranged. Enforced corequisite: Honors Collegium 101E. Limited to junior/senior USIE facilitators. Individual study in regularly scheduled meetings with faculty mentor.
221. Introduction to Performance Studies. (Sem.) Seminar, three hours. Research and practice of traditional disciplines such as theater, music, dance, and as lens to focus thinking about human experience in fields such as philosophy, literature, cultural anthropology, linguistics, education, and law. Emphasis on understanding interdisciplinary dialogue across many fields. Letter grading.

222. Character Development through Makeup and Hair Design. (2) Studio, four hours. Examination of historical and current training in film, television, and theater productions and skills needed to design makeup and hair for film and television productions. Concurrently scheduled with course C122. Letter grading.

CM229. Contemporary Topics in Theater, Film, and Television. (2) (Same as Film and Television CM229.) Lecture, two hours; discussion or seminar, two hours. Limited to junior/senior and graduate theater/film and television students. Examination of current creative process in theater, film, and television, with consideration of writing, directing, and producing. Research and practice of individual contributions in collaborative effort; examination of distinctiveness and interrelations among these arts. Individual units may be repeated twice for credit. Concurrently scheduled with course CM129. S/U or letter grading.

230A-230B-230C. Writing for Contemporary Theatre. (4 to 6 each) Lecture, three hours; studio, two hours. Designed for graduate students. Letter grading.

230A. One-Act Play. Analysis of strategy and dramatic structure of selected contemporary short plays leading to guided completion and critique of student-written one-act plays. Analysis of strategy and dramatic structure of selected contemporary full-length plays leading to guided completion and critique of student-written full-length play. Letter grading.

230C. Performance and Text. Exploration of structural strategies, political implications, and technical demands of selected contemporary American plays leading to guided completion and critique of student work.

231. Special Topics in Playwriting. (4) Lecture, three hours. Analysis and practice of various aspects of playwriting. Variable content selected from topics such as comedy, experimental theater, writing for alternative audiences, or children's theater. May be repeated twice for credit. Letter grading.

232. Manuscript Analysis. (4) Lecture, four hours; discussion or seminar, six hours. Designed for graduate students. Critical and constructive study of dramatic texts as employed by playwrights and screenwriters in selected examples of contemporary work. May be repeated once for credit. S/U or letter grading.

242. Introduction to Design in Production. (4) Lecture or studio, four hours. Introduction to process of design for entertainment, collaborative role of designer, and realization of designs in production. May be repeated once for credit. S/U or letter grading.

243A-243B-243C. Scenic Design. (4–4–4) Studio, four hours. Advanced study and practice in scenic design for theater. Illustration as imetus for design, text analysis, metaphor, and conceptualization. Investigation of design research, process, composition, and style leading to visual presentation of design. May be repeated once for credit. S/U or letter grading.

244A. Advanced Theater Production. (2 to 8) Studio, one to four hours. Application of course 163A, 163B, 163C. Application of stage directing techniques in production of short play or project. Supervised individual research or investigation. May be repeated for maximum of 20 units. Letter grading.

263. Directed Research or Studio. (2 to 8) Tutorial, one to four hours. Limited to graduate students. Individual research or investigation. May be repeated for maximum of 20 units. Letter grading.

265. Modern Theories of Production. (4) Lecture, four hours. Examination of modern theories of production from emergence of director in 19th century to present. Investigation of different responses to problems of creating vital theatrical event in context of ongoing evolution of theater as art form. Examination of different -directing techniques in production of short play or project. May be repeated once for credit. Concurrently scheduled with course C163D. Letter grading.

272. Production Practice in Theater, Film, Video, and Digital Media. (1 to 8) Studio, three to eight hours. Exploration of selected research topics in one or more aspects of production and postproduction practice for entertainment media, including theater, film, video, and digital media. May be repeated for maximum of 4 units. Letter grading.

C285A. Role of Producer in Professional Theater. (2) Lecture, three hours. Designed for graduate students. Study of structure governing economic and artistic decision-making in one or more various aspects of production and postproduction practice for entertainment media, including theater, film, video, and digital media. May be repeated for maximum of 24 units. Letter grading.

C285B. Role of Manager in Educational and Community Theater. (2) Lecture, three hours. Designed for graduate students in administration of educational and community theater. Concurrently scheduled with course C185B. S/U or letter grading.

mentor to finalize course syllabus. Individual contract with faculty mentor required. May not be repeated. Letter grading.

188SSC. Individual Studies for USIE Facilitators. (2) Tutorial, to be arranged. Enrolled requisite: course 188SB. Limited to junior/senior USIE facilitators. Individual study in regular and scheduled meetings with faculty mentor while facilitating USIE 88S course. Individual contract with faculty mentor required. May not be repeated. Letter grading.

189. Directed Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to undergraduate lecture course. Exploration of topics in greater depth through supplemental readings, papers, or as laboratories, with supervising faculty member. May be applied toward honors credit for eligible students. Honor's content noted on transcript. P/NP or letter grading.

195. Community or Corporate Internships in Theater, Film, and Television. (2, 4, or 8) Tutorial, eight, 16, or 24 hours. Limited to juniors/senior. Internship at various theaters, studios, or entertainment organizations accentuating creative contributions, organization, and work of professionals in their various specialties. Students meet on regular basis with instructor and provide periodic reports of their experience. May be taken for maximum of 8 units. Individual contract with supervising faculty member required. Letter grading.

199. Directed Research or Senior Project in Theater. (2 to 8) Tutorial, to be arranged. Limited to juniors/senior. Research under guidance of faculty mentor. Supervised individual research or investigation. Cumulating paper or project required. May be repeated for credit. Individual contract required. P/NP or letter grading.

Graduate Courses


206. Themes in World Theater and Drama. (5) Seminar, four hours. Designed for graduate students. Selection of topics in world history, dramatic production, and/or architecture organized on thematic basis. May be repeated for maximum of 8 units. S/U or letter grading.

208C. Practicum in Dramaturgy. (2 to 12) Laboratory, to be arranged. Requisites: courses 208A, 208B. Demonstration of competence in process of dramatic to completion of approved dramaturgical assignment. May be taken for maximum of 12 units. Letter grading.

210. Topics in World Theater and Drama. (5) Seminar, three hours. Designed for graduate students. Investigation of selected topics in world theater, drama, production, and architecture. May be repeated for four times for credit. S/U or letter grading.

216A. Approaches to Representation. (5) Lecture, three hours; laboratory, one hour. Overview of strategies of representation from classical aesthetic theories to postmodern reconstructions of them. May be repeated once for credit. Letter grading.

216B. Approaches to History. (5) Lecture, three hours; laboratory, one hour. Overview of key methodologies, theories, and debates in historiography of theater and performance linked to plays and performances appropriate to approach. Letter grading.

216C. Approaches to Identification. (5) Lecture, three hours; laboratory, one hour. Overview of key theories, methods, debates, and performance texts of identification structures between audience member or scholar and theatrical or performance object. Letter grading.

220. Graduate Forum. (1 to 4) Seminar, one to four hours. Limited to graduate students. Presentation and discussion of issues informing and affecting contemporary theater. May be repeated for four times for credit. S/U grading.

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375. Teaching Apprentice Practicum. (1 to 4) Seminar, to be arranged. Preparation: apprentice personnel employment as teaching assistant, associate, or fellow. Teaching apprenticeship under active guidance and supervision of regular faculty member responsible for curriculum and instruction at UCLA. May be repeated for credit. S/U grading.


C404F. History of Design Décor Part II: Architecture and Décor—Ancient to Early Neoclassical. (4) Lecture, four hours. Requisites: courses 14A, 14B, 14C. Study of Ancient and early Neoclassical architecture and interior décor as manifestation of cultural, social, economic, and political influences to provide historical framework for design of scenery, costumes, and lighting for theater, film, and television. May be repeated once for credit. Concurrently scheduled with course C104F. Letter grading.

C404G. History of Design for Performance Production Part I: Historic Costume from Prehistoric to Neoclassical. (4) Lecture, four hours. Requisites: courses 14A, 14B, 14C. Study of historic costume as manifestation of cultural, social, economic, and political influences to provide historical framework for design of costumes for theater, film, and television. Survey of history of Western costume and civilian attire with global emphasis. Concurrently scheduled with course C104G. Letter grading.

C404H. History of Design for Performance Production Part II: Historic Costume from Neoclassical to 21st Century. (4) Lecture, four hours. Requisites: courses 14A, 14B, 14C. Study of historic costume as manifestation of cultural, social, economic, and political influences to provide historical framework for design of costumes for theater, film, and television. Survey of history of Western costume and civilian attire with global emphasis. Concurrently scheduled with course C104H. Letter grading.


421B. Advanced Acting: Classical and Historical Drama. (4) Studio/laboratory, six to eight hours. Concepts related to Greek choruses and historical plays. Addresses group concentration and communication, choral breathing, awareness of kines or faculty member being performer's body in space, and relationship of emotion to movement, and voice. Letter grading.

421C. Advanced Acting and Craft for Actor. (4) Studio/laboratory, advanced study with focus on craft, inclusiveness of performance, details of realism, tempo, shared rhythm and relating movement to text, and audition technique. Letter grading.

422. Advanced Acting for Theater, Film, and Television. (8 to 12) Studio/laboratory, eight to 12 hours. Intensive performance experience. May be repeated for maximum of 24 units. Letter grading.

423. Advanced Acting for Virtual Environments. (4) Studio, six to eight hours. Creating gesture, action, and characterization into scene work for virtual reality, motion capture, and other emerging performance capture techniques. May be repeated twice for credit. Letter grading.

424A. Advanced Voice and Text. (2) Studio, three to six hours. Development of voice for stage, including exercises for relaxation, breathing, bodily alignment, disphragmatic breath, head and chest resonance, and warm-up. Application of vocal techniques on contemporary and classical texts, including U.S. dialects and scansion of verse in Shakespeare. Letter grading.

424B. Vowels and Voice Placement. (1) Studio, three hours. Requisites: course 424A. Builds on course 424A. Introduction of vowel diphthongs and triphongs; development of forward sound, including consistent thought energy. Exercises to develop and text to implement forward sound, including movement thought energy. Text and warm-up exercises also covered. Letter grading.

424C. Voice in Action. (1) Studio, three hours. Requisites: course 424A. Physical explorations and techniques for breath sourcing and increasing awareness of voice in action. Sensory awareness work, Linklater and Barry techniques, and Knight-Thompson model may also be explored. Letter grading.


424F. Advanced Vocal Range and Flexibility. (1) Studio, three hours. Dynamic use of vocal range, including tempo, volume, pitch, resonance, actions, and physical presence. Text work focuses on developing vocal action. Physically and vocally designed to keep one's instrument safe while effectively communicating character. Letter grading.


424I. Phonetics, Dialects, and Accents. (1) Studio, three hours. Use of phonetics to enhance actor's ability to create characteristic accents. Culminating dialect presentation project required. Letter grading.

424J. Acting for Microphone. (2) Studio, four to six hours. Techniques including textual analysis and character work in art and craft of recording for microphone. Letter grading.

425A. Advanced Movement I. (2 or 4) Studio/laboratory, three to six hours. Discovery of body's unique language through exercised designed to explore and free total instrument. Development of flexible actor with range, expression, and confidence physically. May be repeated for maximum of 12 units. Letter grading.

425B-425C. Advanced Movement I. (2 or 4 each) Studio/laboratory, three to six hours. Discovery of body's unique language through exercises designed to explore and free total instrument. Development of flexible actor with range, expression, and confidence physically. May be repeated for maximum of 12 units. Letter grading.


425F. Advanced Movement II. (2 or 4) Studio/laboratory, three to six hours. Presentation of more complete picture of stage movement and its relationship to the actor, music, and dance. Advancement of physical training of individual actors to their maximum potential. Experience in techniques and discovery of origins of variety of acrobatic and dance disciplines, including ballet, ballroom, period dance, and circus techniques. Letter grading.

425G-425H. Advanced Movement III. (4 to 8 each) Studio, three to six hours. Advanced physical training for actors in one or more movement, dance, or combat discipline: capoeira, martial arts, ballet, ballroom, period dance, circus techniques. Letter grading.

426A-426B-426C. Alexander Techniques. (2 or 4 each) Studio, three to six hours. Study and practice in Alexander techniques as method of developing balance, poise, and coordination of body and mind. Exploration of use of rhythm to expand movement potential of actors and relevant use of visual arts and animal studies to character development and to expansion of movement potential. Letter grading.

426B-426C. Advanced Studies in Playwriting. (4 to 8 each) Lecture, four to 12 hours. Designed for MFA playwriting program students. Guided completion of full-length scripts for stage. S/U or letter grading.


C433A. Script Development Workshops. (4 to 8) Lecture, three hours; studio, four to 24 hours. Directed study of script development, with emphasis on communication, artistic growth, and professional process. May be taken for maximum of 6 units. Concurrently scheduled with course C133A. Letter grading.

433B. Script Development Workshop. (4 to 8) Formerly numbered C433B. Letter, three hours; studio, four to 24 hours. Designed for graduate students. Guided practice in script development, with emphasis on communication, artistic growth, and professional process. May be taken for maximum of 8 units. Letter grading.

435AF-435AW-435AS. Advanced Problems in Writing for Stage. (0–0–2) Lecture, two hours. Limited to MFA candidates. Review discussion and critique of playwrighting projects. Each course may be repeated for maximum of 12 units. In Progress (435AF, 435AW) and S/U (435AS) grading.

437. Emerging Technologies and Their Uses in Live Performance. (4) Seminar, four hours. Survey of major emerging and contemporary technologies and their potential uses and impact on live performance, from augmented and virtual reality to electronic textiles, Internet of Things, and Modern approaches to artificial intelligence. Offers solid basis for engaging in future collaborations with technologists, for self-study of new technologies, and, for those already more familiar with digital technologies, theoretical background for engaging with social context of these technologies. Concurrently scheduled with course C137. S/U or letter grading.

440A. Sound Mixing. (4) Studio, four hours. Focus on mixing musical. Covers paperwork needed to complete show: Tuning, workspace, equalization, and some advanced projects involving programming and mixing on various consoles. May be repeated twice for credit. Concurrently scheduled with course C140A. Letter grading.

440B. Advanced Programming for Entertainment Design. (4) Studio, three hours. Study and practice in object-based programming using MAX/MSP programming language to control sound and video. May be repeated once for credit. Concurrently scheduled with course C140B. Letter grading.

440C. Advanced Projects in Programming for Entertainment Design. (4) Studio, three hours. Advanced projects using object-based programming to control sound and video. May be repeated once for credit. Concurrently scheduled with course C140C. Letter grading.

441A. Lighting Design. (4) Lecture/studio, four hours. Study and practice in lighting actors, emphasizing texture and character. Presentation of lighting designer's perspective, conceptual development with director, effect of light on dynamics of staging, use of color in light, and relationship of lighting designer to actor. May be repeated twice for credit. Letter grading.

441B. Lighting Design. (4) Lecture/studio, four hours. Study of use of light and color to define space, effect of light on scenery and costumes, lighting for arena/ thrust theaters, multiscreen productions, lighting patterns, and moving scenery. May be repeated once for credit. Letter grading.


441D. Scenic Projection and Media Techniques. (4) Lecture/laboratory, four hours. Designed for graduate students, the course covers the basics of scenic projection and media techniques, with emphasis on analysis, design, and execution of theatrical projection and photographic technique for stage. S/U or letter grading.

442A-442B-442C. Costume Design. (4–4–4) Lecture/studio, four hours. Advanced study and practice in costume design for theater. Imagination as impetus for design, text analysis, metaphor, and conceptualization. Investigation of design research process, period style, and character analysis leading to visual presentation of design. Study of costume design for theatrical productions, ballet, opera, and musical theater. Each course may be repeated once for credit. Letter grading.

443A-443D. Advanced Scenic Design. (4 each) Studio, four hours. Advanced study and practice of scenic design for theater, with emphasis on cultivating imaginations as impetus for design, analysis, metaphor, and conceptualization. Investigation of design research process, composition, and style leading to visual presentation of design, as well as exploration of students' individual cognitive and artistic process and refinement of techniques. Each course may be repeated twice for credit. S/U or letter grading.

444A. Advanced Sound Design. (4) Lecture, four hours; laboratory, four hours. Advanced study and practice in preparation and recording of theater sound designs, with emphasis on analysis of script and score, conceptual development of design, and multi-track recording techniques to realize design. May be repeated once for credit. Concurrently scheduled with course C144A. Letter grading.

444B. Advanced Sound Design. (4) Lecture, four hours; laboratory, four hours. Advanced study and practice in preparation and recording of sound designs, as they relate to performance environments, techniques associated with recording, mixing, processing, automation, and reproduction of dialogue, effects, and music tracks for theater sound design. May be repeated once for credit. Concurrently scheduled with course C144A. Letter grading.

444C. Script Analysis for Sound Designers. (4) Lecture, four hours; laboratory, four hours. Advanced study and practice in preparation of theater sound design with emphasis on analysis of script and score, conceptual development of design, and multi-track recording techniques to realize design. May be repeated once for credit. Concurrently scheduled with course C144C. Letter grading.

445A-445B-445C. Production Design for Film, Television, and Entertainment Media. (4–4–4) Lecture/studio, four hours. Study and practice in design of scenic environment for film, video, and entertainment media, including the use of design choices, role of production designers and art directors, and design for single- and multi-camera production. Each course may be repeated once for credit. Letter grading.

446A-446B. Art and Process of Entertainment Design. (4–4) Lecture, three hours. Conceptualization, design, and prototyping of interactive theatrical events. Concurrently scheduled with courses C146A- C146B. Lecture, two hours; seminar, two hours. Letter grading. Investigation of original forms of media-rich entertainment experience through lectures, presentations, and seminar participation. Students form collaborative teams to conceive and propose interactive entertainment events. C446B. Prototype development; two to five proposals to be more completely defined and developed. Students form collaborative teams for further conceptual development of their project proposals. May be repeated once for credit.

448A-448B-448C. Costume Design for Film, Television, and Entertainment Media. (4–4–4) Lecture/studio, four hours. Study and practice in design of costume for live and virtual characters in film, television, and entertainment media, including effect of differing media on design choices. Courses 448A and 448B may be repeated twice for credit. Concurrently scheduled with course 448C. Letter grading.

448D. Deconstructing Glamour. (4) Lecture, three hours; screenings, two hours. Exploration of integration of costume design into filmmaking process and illumination of work required to bring characters from written page to life. Letter grading.

449A. Design Thesis Preparation. (2) Lecture/studio, four hours. Series of group design projects that prepare design students for thesis examination. In Progress grading; credit to be given only on completion of courses 449B and 449C.

449B. Design Thesis Preparation. (2) Lecture/studio, four hours. Series of group design projects that prepare design students for thesis examination. In Progress grading; credit to be given only on completion of course 449C.

449C. Design Thesis Project. (4) Formerly numbered 449.) Lecture/studio, four hours. Series of group design projects that serve as comprehensive examination for MFA degree in entertainment design. Review and evaluation of projects by design faculty members from all areas of curriculum. Letter grading.

451A. Scenic Design. (4) Lecture/studio, four hours. Imagination as impetus for design, text analysis, metaphor, and conceptualization. Investigation of design research process, composition, and style leading to visual presentation of design. May be repeated once for credit. Concurrently scheduled with course C151A. Letter grading.

451B. Scenic Design for Theater. (4) Lecture, three hours; studio, four hours. Study of scenic design for proscenium, thrust, and arena configurations, multiset productions, and music theater. May be repeated once for credit. Concurrently scheduled with course C151B. Letter grading.

451C. Production Design for Film, Television, and Video. (4) Lecture/studio, four hours. Study of role of art director, scenic design for single-camera and multicamera production, and set decoration. May be repeated twice for credit. Concurrently scheduled with course C151C. Letter grading.

452A. Lighting Design. (4) Lecture/studio, four hours. Study of lighting, with emphasis on imagination, text analysis, metaphor, and conceptualization. Investigation of composition and control of light and color in relation to actor. May be repeated once for credit. Concurrently scheduled with course C152A. Letter grading.

452B. Lighting Design for Theater. (4) Lecture/studio, four hours. Study of lighting design, with emphasis on imagination, text analysis, metaphor, and conceptualization. Investigation of composition and control of light and color in relation to actor. May be repeated once for credit. Concurrently scheduled with course C152B. Letter grading.


452D. Lighting Design for Performances and Special Events. (4) Lecture, four hours. Requisites: courses C452A, C452B, C452C. Advanced topics in lighting design, including live performances for concerts, exhibitions, and live events. Concurrently scheduled with course C152D. Letter grading.

452E. Lighting Design for Dance. (4) Lecture, four hours. Requisite: course C452C or 441C. Advanced topics in lighting design, concentrating on live dance performance in all styles. Concurrently scheduled with course C152E. Letter grading.

453A. Costume Design. (4) Lecture/studio, four hours. Imagination as impetus for design, text analysis, metaphor, and conceptualization. Investigation of design research process, composition, and style leading to visual presentation of design. May be repeated twice for credit. Concurrently scheduled with course C153A. Letter grading.

453B. Costume Design for Theater. (4) Lecture/studio, four hours. Study of costume design for proscenium, thrust, and arena configurations, multiset productions, and music theater. May be repeated twice for credit. Concurrently scheduled with course C153B. Letter grading.

453C. Costume Design for Film and Television. (4) Lecture/studio, four hours. Study of current professional costume design practices in film and television, including effect of differing media on design choices. May be repeated twice for credit. Concurrently scheduled with course C153C. Letter grading.

453D. Projects in Costume Design Management. (4) Lecture, three hours. Examination of professional duties of costume designers, set costumers, and supervisors, especially management of production logistics, including but not limited to costume breakdowns, creating budgets, adhering to and overseeing them, as well as set costumer training for film and television, practicing on-set protocol, breakdown of daily responsibilities, and assembling set costumer kits ready for
production. Practice with professional resourcefulness to move from abstract to substantive problem solving, maintaining creative and collaborative environment while adhering to logistical obstacles and tasks. Concurrently scheduled with course C153D. Letter grading.

C453E. History of Costume Design in Movies. (4) Lecture, three hours; screens, two to six hours. History of costume design within context of 20th-century fashion and film history, including evolution of role of costumiers and designers. Concurrently scheduled with course C153E. Letter grading.

C453F. Practice of Costume Design for Film Productions. (4) Lecture, three hours. Introduction to costume design as tool for storytelling, exploring integration of costume design and filmmaking process and ways to take creative risks. Skills needed to effectively costume short narrative films, including script breakdown, collaboration with directors and actors, and how to manage production challenges. Concurrently scheduled with course C153F. Letter grading.

C454A. Sound Design. (4) Lecture/studio, four hours. Introduction to sound and audio in acoustic, audio, and digital domain. Study and practice of techniques for recording and creating soundscapes and soundtracks. May be repeated once for credit. Concurrently scheduled with course C154A. Letter grading.

C454B. Sound Design for Theater. (4) Lecture/studio, four hours. Exploration of sound design for theater and techniques for mixing, reinforcement, and signal processing. Topics include use of delay, equalization, and microphone placement for theater sound reinforcement. Study of creation of sound effects, control of MIDI data, and design techniques for musical theater. May be repeated once for credit. Concurrently scheduled with course C154B. Letter grading.

C454C. Sound for Film and Television. (4) Lecture/studio, four hours. Study of current professional sound recording, rerecording, mixing, and synchronization practices for film and television. Concurrently scheduled with course C154C. Graduate students expected to produce designs demonstrating higher level of proficiency and skill. Letter grading.

C455A. Graphic Representation of Design: Perspective Drawing. (2) Studio, four hours. Requisite: courses 14A, 14B, 14C. Introduction to use of pencil and pen to communicate scenic designs, including one- and two-point perspective, form light, shade, and textures. Graduate students expected to produce designs demonstrating higher level of proficiency and skill. Concurrently scheduled with courses C155A. Letter grading.

C455B. Graphic Representation of Design: Multimedia Rendering. (2) Studio, four hours. Study and practice of techniques and rendering methods as they relate to interpretation of scenic, lighting, and costume renderings, with focus on human form in space. Weekly demonstrations of wide variety of art media, including watercolor, markers, pastel, and collage rendering. May be repeated twice for credit. Concurrently scheduled with courses C155B. Letter grading.

C455C. Graphic Representation of Design: Digital Rendering. (3) Studio, four hours. Study and practice in rendering costumes, lighting, and scenic elements with combination of hand and digital rendering techniques. Coverage of rendering from life, enhancing final rendering with variety of computer-assisted formats to create polished sophisticated presentations for theater, film, and television productions. May be repeated twice for credit. Concurrently scheduled with courses C155C. Letter grading.

C455D. Graphic Representation of Design: Model Making. (2) Studio, four hours. Requisite: course 147A or 147B. Study of model for representation of scenic designs from initial working prototypes to finished painted models. Use of wide variety of materials and techniques for execution of model. Graduate students expected to produce models demonstrating higher level of proficiency and skill. Concurrently scheduled with courses C155D. Letter grading.

C455E. Graphic Representation of Design: Life Drawing. (2) Studio, four hours. Requisite: course 147A or 147B. Study and practice in drawing of human form. Concurrently scheduled with courses C155E. Letter grading.

C455F. Representation of Design: Costume Rendering. (2) Studio, four hours. Requisite: course 147A or 147B. Study of techniques for rendering theatrical costumes, with emphasis on figure, clothing, and fabrics. Concurrently scheduled with courses C155F. Letter grading.

C455G. Graphic Representation of Design: Scene Painting Techniques. (2) Studio, four hours. Requisite: course 147A or 147B. Study of scenic painting techniques and use of color, design and elevations. May be repeated once for credit. Concurrently scheduled with courses C155G. Letter grading.

C455H. Selected Topics in Graphic Representation of Design. (2) Studio, four hours. Group study of selected subjects in techniques for interpretation of design for theater. May be repeated once for credit. Concurrently scheduled with courses C155H. Letter grading.

C456A. Introduction to Computer-Assisted Drafting. (4) Studio, four hours. Requisite: course 147A. Investigation of drawing and editing techniques, drawing floor plan sections, and elevation drawings using AutoCAD. Concurrently scheduled with course C156A. Letter grading.


457D. Advanced Historical Costume Interpretation and Construction. (4) Lecture/studio, four hours. Introduction to costume design as tool for interpretation of one renowned artwork and as intrinsic element of art history to gain expertise in costume and pattern making. Explore cultural costume inspired by masterwork and to gain familiarity with artist’s life and social milieu. Letter grading.


459A–459B. Directing for Theater, Film, and Television. (4–4) Lecture, three hours. Limited to graduate theater students. Analysis and exploration, with specific scenes, of differences and many similarities in directorial approach to same literary material in three media. S/U or letter grading.

460AF–460AW–460AS. Contemporary Issues in Direction. (1–1–1) Discussion, three hours. Designed for graduate students. Discussion of role of director in contemporary professional practice. Review discussion and critique of directing projects. Each course may be repeated for maximum of 4 units. Letter grading.

462. Advanced Directing. (8 or 12) Studio, 12 or 30 hours. Designed for graduate students. Advanced problems in directing for theater, film, and television. May be repeated for maximum of 24 units. Letter grading.

463. Production Project in Direction for Stage (8 or 12 units). Studio, 24 hours. Designed for graduate students. Creative participation as director in conceptualization and preparation of dramatic work. Letter grading.

472. Production Practice in Theater, Film, Video, and Digital Media. (1 to 8) Studio, three to eight hours. Exploration and laboratory experience in one or more various aspects of production and postproduction practice for entertainment media, including theater, film, video, and digital media. May be repeated for maximum of 24 units. Letter grading.

474. Advanced Projects in Design and Production. (4) Lecture/studio, four hours. Study and practice in production and execution of theater, film, video, and related entertainment forms. As contributing artistic member of design team, creative responsibilities include designer, technical supervisor, or production manager. May be repeated for maximum of 16 units. Letter grading.

475A. Graduate Design Portfolio Project: Scenic Design. (2) Lecture; four hours; studio, four to eight hours. Preparation: at least six master scenic design courses. Preparation of complete designs and renderings for theatrical, film, opera, and theoretical productions and assembling of design portfolio and résumé. Information about industry demands and protocol for portfolio presentation and review, with projects prepared under guidance of respective design faculty adviser. Letter grading.

475B. Graduate Design Portfolio Project: Lighting Design. (2) Lecture; four hours; studio, four to eight hours. Preparation: at least six master lighting design courses. Preparation of complete designs and renderings for theatrical, film, and theoretical productions and assembling of design portfolio and résumé. Information about industry demands and protocol for portfolio presentation and review, with projects prepared under guidance of respective design faculty adviser. Letter grading.

475C. Graduate Design Portfolio Project: Costume Design. (2) Lecture; four hours; studio, four to eight hours. Preparation: at least six master costume design courses. Preparation of complete designs and renderings for theatrical, film, operatic, and theoretical productions and assembling of design portfolio and résumé. Information about industry demands and protocol for portfolio presentation and review, with projects prepared under guidance of respective design faculty adviser. Letter grading.
Faculty Committee
Frank A. Laski, PhD (Molecular, Cell, and Developmental Biology)
David W. MacFadyen, PhD (Comparative Literature, Musicology)
Elizabeth A. Marchant, MA (Comparative Literature, Gender Studies)
Muriel C. McClendon, PhD (History)
William I. Newman, PhD (Earth, Planetary, and Space Sciences; Mathematics; Physics and Astronomy)

Scope and Objectives
Available to all undergraduate students, the University Studies curriculum seeks to promote academic success and facilitate the transition of new students as they enter UCLA. Courses are tailored to specific undergraduate populations and are designed to introduce students to the research university and academic culture of UCLA. Beyond addressing themes of academic success, the courses also introduce students to the unique opportunities and experiences available at a large research university. For more information, contact Mariana Gabra.

University Studies
Lower-Division Courses
10A. ACE UCLA | Critical Strategies to Achieve Undergraduate Excellence for Incoming Freshmen. (2) Seminar, two hours. Not open to students who have completed University Studies 10B, 10C, 10D, or former course 10. Designed for first-year students in making successful transition to UCLA by focusing on academic, social, and emotional aspects of transition. Study of research university’s history, mission, rigors, expectations of students, and pedagogical implications. Cultivation of formal space on campus where UCLA students learn to engage both diplomatically and collaboratively with diverse community of scholars; to comprehend and apply theoretical foundations of college student development; to navigate complex structure of UCLA and to be fully aware of their value to intellectual fabric of institution as contributors to innovative research and scholarship. P/NP grading.

10B. ACE UCLA | Critical Strategies to Achieve Undergraduate Excellence for International Students. (2) Seminar, two hours. Not open to students who have completed University Studies 10A, 10C, 10D, or former course 10. Designed for international students in making successful transition to UCLA by focusing on academic, social, and emotional aspects of transition. Study of research university’s history, mission, rigors, expectations of students, and pedagogical implications. Cultivation of formal space on campus where UCLA students learn to engage both diplomatically and collaboratively with diverse community of scholars; to comprehend and apply theoretical foundations of college student development; to navigate complex structure of UCLA and to be fully aware of their value to intellectual fabric of institution as contributors to innovative research and scholarship. P/NP grading.

10C. ACE UCLA | Critical Strategies to Achieve Undergraduate Excellence for First-Generation Students. (2) Seminar, two hours. Not open to students who have completed University Studies 10A, 10B, 10C, 10D, or former course 10. Designed to assist first-generation students in making successful transition to UCLA by focusing on academic, social, and emotional aspects of transition. Study of research university’s history, mission, rigors, expectations of students, and pedagogical implications. Cultivation of formal space on campus where UCLA students learn to engage both diplomatically and collaboratively with diverse community of scholars; to comprehend and apply theoretical foundations of college student development; to navigate complex structure of UCLA and to be fully aware of their value to intellectual fabric of institution as contributors to innovative research and scholarship. P/NP grading.

10D. ACE UCLA | Critical Strategies to Achieve Undergraduate Excellence for Humanities Students. (2) Seminar, two hours. Not open to students who have completed University Studies 10A, 10C, 10D, or former course 10. Designed for first-year students in making successful transition to UCLA by focusing on academic, social, and emotional aspects of transition. Study of research university’s history, mission, rigors, expectations of students, and pedagogical implications. Cultivation of formal space on campus where UCLA students learn to engage both diplomatically and collaboratively with diverse community of scholars; to comprehend and apply theoretical foundations of college student development; to navigate complex structure of UCLA and to be fully aware of their value to intellectual fabric of institution as contributors to innovative research and scholarship. P/NP grading.

10E. ACE UCLA | Critical Strategies to Achieve Undergraduate Excellence for Humanities Majors. (2) Seminar, two hours. Not open to students who have completed University Studies 10A, 10C, 10D, or former course 10. Designed for first-year students in making successful transition to UCLA by focusing on academic, social, and emotional aspects of transition. Study of research university’s history, mission, rigors, expectations of students, and pedagogical implications. Cultivation of formal space on campus where UCLA students learn to engage both diplomatically and collaboratively with diverse community of scholars; to comprehend and apply theoretical foundations of college student development; to navigate complex structure of UCLA and to be fully aware of their value to intellectual fabric of institution as contributors to innovative research and scholarship. P/NP grading.

15A. Collaborative Learning Workshops for Humanities and Social Sciences Majors. (2) Seminar, two hours. Designed for students in First Year Scholars Program (FYSP). Part I of three-part series of collaborative learning and community-building work sessions. Collaborative work spaces and participatory learning environments are integral component of student development. Creates specific and unique space for FYSP scholars to collaborate, support, and to be fully aware of their value to intellectual fabric of institution as contributors to innovative research and scholarship. P/NP grading.

15B. Collaborative Learning Workshops for Humanities and Social Sciences Majors. (2) Seminar, two hours. Required course 15A. Designed for students in First Year Scholars Program. Workshops are integral component of student learning and development. Continues to cultivate learning communities.

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tool for portfolio presentation and review, with projects prepared under guidance of respective de- sign faculty adviser. Letter grading.

C476A-C476B-C476C. Production Practice in Theater with Emerging Technologies I, II, III. (4–4–4) Studio/labouratory, four to six hours. Collaborative cre- ative and technical development of all aspects of the- atrical production incorporating emerging and/or advanced technologies, culminating in rehearsal and public presentation. Offered as series of up to three courses in cases where multiple quarters are needed to prepare production. Concurrently scheduled with course C176A-C176B-C176C. Letter grading.

495A-495B-495C. Practicum and Practice in Teaching. (2 to 12) Seminar, to be arranged; discussion, two hours. Limited to PhD students. Study and practice of teaching theater at university level. Orientation and preparation of graduate (PhD) stu- dents who have responsibility to assist in teaching un- dergraduate courses in department. Discussion of problems common to teaching experience. Letter grading.

498. Professional Internship in Theater, Film, and Television. (4, 8, or 12) Tutorial, to be arranged. Full- or part-time at studio or on professional project. De- signed for advanced MFA students. Internship at various film, television, or theater facilities accentuating creative contribution, organization, and work of pro- fessionals in their various specialties. Given only when projects can be scheduled. S/U or letter grading.

501. Cooperative Program. (2 to 8) Tutorial, to be ar- ranged. Preparation: consent of UCLA graduate ad- viser and graduate chair, host campus instructor, department chair, and graduate dean. Used to record enrollment of UCLA students in courses taken under cooperative arrangement with USC. S/U grading.

595A. Directed Individual Studies: Research. (2 to 12) Tutorial, to be arranged. Designed for graduate students. May be repeated with consent of instructor. S/U or letter grading.

596B. Directed Individual Studies: Writing. (2 to 12) Tutorial, to be arranged. Designed for graduate stu- dents. May be repeated with consent of instructor. S/ U or letter grading.

596C. Directed Individual Studies: Directing. (2 to 12) Tutorial, to be arranged. Designed for graduate students. May be repeated with consent of instructor. S/U or letter grading.

596D. Directed Individual Studies: Design. (2 to 12) Tutorial, to be arranged. Designed for graduate stu- dents. May be repeated with consent of instructor. S/ U or letter grading.

596E. Directed Individual Studies: Acting. (2 to 12) Tutorial, to be arranged. Designed for graduate stu- dents. May be repeated with consent of instructor. S/ U or letter grading.

596F. Directed Individual Studies: Production. (2 to 12) Tutorial, to be arranged. Designed for graduate students. May be repeated with consent of instructor. S/U or letter grading.

597. Preparation for PhD Qualifying Examinations in Theater Arts. (2 to 12) Tutorial, to be arranged. Writing of prospectus and three reading lists. May be repeated for credit. S/U grading.

599. PhD Dissertation in Theater Arts. (2 to 12) Tu- torial, to be arranged. Preparation: advancement to PhD candidacy. Research for and writing of PhD dis- sertation. May be repeated for credit. S/U grading.
Workshops prepare students for second year, as they become more intentionally engaged in academic community, at UCLA and beyond. Workshops foster academic, professional, and personal development of students majoring in humanities and social sciences. Instructors, peer mentors, and campus partners facilitate interactive workshops that help students transition to, engage with, and navigate UCLA as they culminate their first year at university. P/NP grading.

15C. Collaborative Learning Workshops for Humanities and Social Sciences Majors. (2) Seminar, two hours. Requisite: course 15B. Designed for students in First Year Scholars Program (FYSP), Part III of three-part series of collaborative learning and community-building work sessions. Students work together on on-going research proposal and project presented at culminating of program. Collaborative work spaces and processes and learning environments are integral component of student development. Creates specific and unique space for FYSP scholars to cultivate community and support, as well as develop critical strategies to achieve undergraduate excellence at top-tier institution. Engages students collaboratively with diverse community of scholars; supports their understanding and application of effective learning strategies; guides students in practice growth mindset, navigation and application of effective learning strategies; and development of complex structure of UCLA, thinking critically about diversity and their identity, and being fully aware of their value to intellectual fabric of institution as contributors to innovative research scholars. P/NP grading.

20. ACE UCLA | Critical Strategies to Achieve Undergraduate Excellence for International Students. (2) Seminar, two hours. Designed to help first-year international students make successful transition to UCLA and to life as college students in U.S. Examination of research on transition of international students to college in U.S., adjustment to life in U.S., policies and procedures, and campus resources. P/NP grading.

30. How to Succeed at UCLA: Retention. (2) Seminar, two hours. Limited to students in Bruin Readmission Program. Designed to provide students who are working toward readmission critical understanding of how they and others arrive at their dismissal status and steps they can take that lead to academic success in future. Examination of research on retention and departure in high education and both individual and collective strategies for academic success. P/NP grading.

Graduate Course

375. Teaching Apprentice Practicum. (1 to 4) Seminar, to be arranged. Preparation: apprentice personnel enrollment as teaching assistant, associate or fellow. Teaching apprenticeship under active guidance and supervision of regular faculty member responsible for curriculum and instruction at UCLA. May be repeated for credit. S/U grading.

URBAN PLANNING

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Kirsten Schwarz, PhD

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Kian Goh, PhD
Veronica Herrera, PhD
Liz C. Koslov, PhD
Jose Loya, PhD
Kelly Turner, PhD

Lecturers

Ted M. Bardacke, MS
Carol E. Goldstein, BA
Joan C. Ling, MA
Walker R. Wells, MCRP

Adjunct Assistant Professor
Gregory S. Pierce, PhD

Scope and Objectives

The professional urban planner works on the creation and management of the urban environment, including its physical, economic, and social elements. Housing, transportation, air and water quality, the preservation of historic communities, and the development of community-level economic and employment programs are some of the tasks undertaken by recent graduates of the Department of Urban Planning. Graduates have taken positions in local, state, and national governments, and increasingly with nonprofit and private companies whose products and services affect the urban environment. While most UCLA graduates find positions in the U.S., the program offers the opportunity to undertake by making it an extraordinary natural laboratory for learning about urban and regional issues, whether the focus is on immigration, employment, the built environment, transportation, poverty, natural resources, or a host of other challenges. The Urban and Regional Studies minor offers undergraduate students a means to address some of these issues from an interdisciplinary perspective, giving a balanced mixture of theory, practice, and service learning courses.

To enter the minor, students must be in good academic standing with an overall grade-point average of 2.0 or better; have completed 90 or more units, and complete either Urban Planning M120 (or Public Affairs M109) or 121 with a grade of C or better. An introductory course in geography, political science, or sociology is recommended. For more information, contact the undergraduate advising office.

Required Courses (28 units): (1) Urban Planning M120 (or Public Affairs M109) or 121 with a grade of C or better; (2) Five elective courses selected from Public Affairs 10, 110, 120, 140, M142, 148, M152, M153, M159, M160, M161, Urban Planning M120 (unless taken under item 1), M121 (unless taken under item 1), CM151, M161, M167, M168 (electives may be added as additional undergraduate courses are offered; any urban planning course from 100-199 is permitted); (3) Capstone project that may be satisfied by one of the following: (a) Urban Planning I85SL—service learning project, (b) Urban Planning I95 or Public Affairs I95—internship in Urban Planning, or (c) Urban Planning I99 or Public Affairs I99 with a faculty mentor affiliated with this minor—individual research project.

By petition, courses outside the Luskin School of Public Affairs may be applied as an elective for the minor. No more than two courses from outside the Luskin School of Public Affairs may be applied toward the minor. A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor. Each minor course must be taken for a letter grade, and students must have an overall grade-point average of 2.0 or better in the minor. Successful completion of the minor is indicated on the transcript and diploma.
Graduate Study

Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Division website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Graduate Degrees

The Department of Urban Planning offers the Master of Urban and Regional Planning (MURP) degree and the Doctor of Philosophy (PhD) degree in Urban Planning. See the website for complete information.

Planning MURP/Architecture MArch, Urban Planning MURP/Community Health Sciences MPH, Urban Planning MURP/Environmental Health Sciences MPH, Urban Planning MURP/Latin American Studies MA, Urban Planning MURP/Law JD, and Urban Planning MURP/Management MBA are also offered.

Urban Planning Lower-Division Courses

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

99. Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to lower-division lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be arranged toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

Student Research Program. (1 to 2) Tutorial (supervised research or other scholarly work), three hours per week per unit. Entry-level research for lower-division students under guidance of faculty mentor. Students must be in good academic standing and enrolled in minimum of 12 units (excluding this course). Individual contract required; consult Undergraduate Research Center. May be repeated, P/NP grading.

Upper-Division Courses

M110. Inequality and Democracy: Analysis and Praxis of Public Problems. (4) Same as Social Welfare M110E. Lecture, three hours. Overview of current urban poverty and inequality and examination of forms of action, from role of government to social movements, that seek to intervene in such problems. Study of problems, programs, policies, and politics in globally interconnected, transnational world, while avoiding analytical divide between global north and global south. Letter grading.

M120. Introduction to Cities and Planning. (4) Formerly numbered 120. (Same as Public Affairs M120.) Lecture, three hours. Survey of urban history and evolution in U.S., urban social theory, current growth trends, system of cities, urban economy and economic restructuring, traditional and alternative location theories, urban transportation, and residential location and segregation. P/NP or letter grading.

121. Urban Policy and Planning. (4) Lecture, three hours. Examination of current urban planning and policy issues and debates, such as normative theories of good urban form, metropolitan organization and governance, economic development and growth management, edge cities, spatial mismatch hypothesis, urban poverty, racial/ethnic inequality, gender and urban structure, sustainability, and future of cities. P/NP or letter grading.

M122. Policy, Planning, and Community. (4) Same as Asian American Studies M108B.) Lecture, three hours; field laboratory, Project-oriented methods course on conducting heroes and assessment in Asian American communities. Geographic information systems to be used to define problems and needs. Letter grading.

129. Special Topics in Urban Policy and Research. (4) Lecture, three hours. Examination of particular planning/policy subfield (e.g., economic development, environmental planning, housing and community development, international development, land use, or urban design) in some depth. Specific topic area rotates depending on instructor. May be repeated for credit with topic change. P/NP or letter grading.

130. Fundamentals of Urban and Regional Economics. (4) Lecture, three hours. Preparation: one introduction to microeconomics course. Most U.S. population lives and works in urbanized areas, and world’s population is becoming more urbanized with each passing decade. National, state, and local governments are engaged in managing, planning, policy-making, and governance in urban context. Ultimate efficacy of those policies can be enhanced by understanding of economic forces acting on urban areas. Basic concepts related to location choice, agglomeration effects, economies of scale, and specialization by cities and transportation. P/NP or letter grading.

C133. Political Economy of Urbanization. (4) Lecture, three hours. Introduction to new approaches to urban studies, basic concepts and analytical approaches of urban political economy, with major emphasis on urban American problems and restructuring of modern metropolises. Topics include historical geography of urbanization, development and transformation of urban spaces, social and cultural articulations of urban sustainability and how it might be achieved. Letter grading.

M140. Issues in Latina/Latino Poverty: Mexican and Central American Voices from Los Angeles. (4) Same as Chicana and Chicano Studies M121 and Labor Studies M121.) Lecture, four hours. Examination of key issues of work, housing, and neighborhoods) in urban poverty, with particular focus on Mexican and Central American immigrant populations in Los Angeles. Exploration of major theoretical models that explain urban poverty and application of them in comparative context while exploring differences between Mexican and Central American immigrants. Social conditions and processes that underpin lives of poor people in comparative context while looking at differences between two major Latino-origin populations in Los Angeles. Critical analysis of new forms of urban poverty in contemporary American society. Letter grading.

141. Planning with Minority Communities. (4) Lecture, three hours. Overview of planning history, theory, and contemporary practices of low-income communities, communities of color, and underserved neighborhoods, particularly in Los Angeles area. Field of planning offers distinct perspectives and opportunities for improving vulnerable communities. Topics range from discussion of intersection between race and income, critical race theory, community development, residential segregation, spatial mismatch, and environmental justice to social justice. P/NP or letter grading.

M150. Transportation Geography. (4) Same as Geography M153B.) Lecture, three hours. Designed for juniors/seniors. Study of geographical aspects of transportation, with focus on characteristics and functions of various modes and on complexities of intra-urban transportation. P/NP or letter grading.

CM151. Transportation and Land Use: Parking. (4) Formerly numbered 151.) (Same as Public Affairs M153.) Lecture, three hours. Requisite: Economics 11 or Public Affairs 40. Parking is misunderstood link between transportation and land use. Transportation engineers typically assume that free parking simply is there at end of most trips, while urban planning as transport as transport planning is an engine that engineers must study. No profession is intellectually responsible for parking, and everyone seems to assume that someone else is doing hard thinking. Mistakes in planning for parking help to explain why planning for transportation and land use has in many ways gone slowly, subtly, incrementally wrong. Study of theory and practice of planning for parking and examination of how planning for parking in U.S. has become planning for free parking. Exploration of new ways to improve planning for parking, transportation, and land use. Concurrently scheduled with C251. Letter grading.

M160. Environmental Politics and Governance. (4) Same as Environment M164.) Lecture, three hours. Environmental planning is more than simply finding problems and fixing them. Each policy must be negotiated and implemented within multiple complex systems of governance. Institutions and politics matter deeply. Overview of how environmental governance works in practice and how it might be improved. Letter grading.

M161. Urban Sustainability. (4) Same as Public Affairs M160.) Lecture, three hours. In 21st century, majority of Earth’s population now lives in urban areas and virtually no part of globe remains untouched by human influence. Cities can and must address most pressing social and environmental challenges but are also potential centers of innovation for addressing those challenges. Examination of theory and practice for geography and related methods to understand many articulations of urban sustainability and how it might be achieved. Letter grading.

M164A. Documentary Production for Social Change: Mobility in Los Angeles. (8) Same as Film and Media Studies M164A.) Seminar, three hours; fieldwork, two hours. Exploration of documentary film-making as catalyst for social change, using daily community formations of commuting, access to public transportation, and car-based versus alternative (bike and pedestrian) forms of commuting. Exposure to observational, interview-based, and participatory documentary shooting and editing techniques, as well as social marketing strategies that are vital to documentary production and distribution. Letter grading.

M165. Environmentalism: Past, Present, and Future. (4) Same as Environment M125 and Geography M125.) Lecture, three hours; discussion, one hour. Exploration of history and origin of major environmental ideas, movements or countermovements they spawned, and new and changing nature of modern environmentalism. Introduction to early ideas of environment, how rise of modern sciences reshaped environmental thought, and how this was later transformed by 19th-century ideas and rise of American conservation movements. Review of politics of American environmental thought and contemporary environmental questions as they arise, set of questions about nature of development, sustainability, and equity in environmental debate. Exploration of issues in broad context, including global climate change, rise of pandemics, deforestation, and environmental justice impacts of war. Letter grading.

CM166. Global Environment and Development: Problems and Issues. (4) Same as Geography M127.) Lecture, three hours; discussion, one hour. Discussion of global energy restructuring and its connection to changing organization of production and
resulting environmental impacts. Case studies from Africa, Latin America, Asia, and U.S. Concurrently scheduled with course C266. P/NP or letter grading.

M167. Environmental Justice through Multiple Lenses. (Same as Environment M167 and Public Affairs M161.) Lecture, three hours. Examination of intersections between race, economic class, and environmental issues in the U.S., with focus on issues related to social justice. Because environmental inequality is highly complex phenomenon, multidisciplinary and multi-perspective, themes are examined using alternative ways of understanding, interpreting, and taking action. P/NP or letter grading.

M168. Politics of Water. (Same as Public Affairs M159.) Examination of public and private control over water resources with an emphasis on understanding, interpreting, and taking action. P/NP or letter grading.

M171. Planning Issues in Latino/Latinx Communities: Planning for Latino/Latinx Community Development in the Cities of Mexico, the United States, and in Spanish-Speaking Countries. (4) (Formerly numbered M171S.) Lecture, three hours. A multidisciplinary examination of the history and development of Latinx communities in the United States and Mexico. Topics include demographics, community development, urban planning, and the role of planning in the context of the current political climate. P/NP or letter grading.

M175. Women and Cities. (Same as Gender Studies M175.) Lecture, three hours. Limited to juniors/seniors. Examination of the relationship between women and cities: (1) how cities have affected women’s opportunities for economic and social equality, (2) women’s contributions to development of U.S. cities, (3) the role of planning and planning education in urban planning and development, and (4) women’s role in community development.Requires completion of prerequisite course. P/NP or letter grading.

C184. Looking at Los Angeles. (4) Lecture, three hours. Introduction to history and physical form of Los Angeles, with emphasis on understanding nature of speculative inquiry in architecture and urban design. Topics include history of Los Angeles, urban design, and the role of architecture in shaping urban form. P/NP or letter grading.

M185SL. Community-Based Research in Planning. (4) Seminar, one hour; fieldwork, three hours. Preparatory: at least four Urban and Regional Studies minor courses, of which at least one should be related to subject matter of fieldwork. Limited to juniors/senior minor students. Designed to serve as community-based project. P/NP or letter grading.


M201. Theories of Architecture. (4) (Same as Architecture M201.) Lecture, three hours. Exploration of conceptual and historical structures that shape current issues in architectural theory. Readings in primary texts serve as framework for understanding and expressing inquiry in architectural context. Letter grading.

M202A-202B. Colloquium in Planning Research. (1 or 2) Tutorial, three hours. Course 202A is enforced requirement of all second-year students completing applied planning research projects as part of MURP comprehensive examination capstone option. Letter grading. M205A. Seminar, three hours. Guides students through identifying topics, selecting clients, developing scope of work, and managing project schedule. Required of all second-year students completing applied planning research projects, as part of MURP comprehensive examination capstone option. Letter grading. M205B. Seminar, three hours. Reading and discussion of contemporary planning topics. Preparation of executive summary and poster synthesizing their work.

M210. Introduction to Geographic Information Systems. (4) (Formerly numbered M210A.) Laboratory, three hours. Designed to familiarize students with use of geographic data in public policy, urban planning, and related practice, and develop skill base for community practice that provides each student with tools necessary to organize and plan effectively for political, economic, and social justice. Course objectives include: (1) students learn how to use geographic information systems (GIS) to inform practice, advocacy, and policy work. Letter grading.

M215. Advanced Geographic Information Systems. (4) (Formerly numbered M215A.) Laboratory, three hours. Designed to guide students through advanced topics in applications of geographic information systems (GIS) to the field of urban and regional planning. Students will be introduced to advanced GIS concepts, such as spatial analysis and data management, and will be required to complete a GIS-based project. Letter grading.

M216. Planning and Environmental Policy. (4) (Same as Public Policy M216.) Lecture, three hours. Focus on the role of environmental policy in shaping the built environment. Topics include environmental regulations, the role of planning in environmental decision making, and the relationship between planning and environmental policy. Letter grading.

M217. Housing Segregation, Housing Discrimination, and Evolution of Public Policy. (1 to 8) (Same as Law M217.) Seminar, three hours; two field trips. Course M217A is enforced requirement to M217B. Consideration of selected aspects of housing law and policy, such as public accommodation, fair housing law, and local government enforcement of fair housing law. Letter grading.

M218. Housing Discrimination, Housing Discrimination, and Evolution of Public Policy. (1 to 8) (Same as Law M218.) Seminar, three hours; two field trips. Course M218A is enforced requirement to M218B. Consideration of selected aspects of housing law and policy, such as public accommodation, fair housing law, and local government enforcement of fair housing law. Letter grading.

M219. Housing Segregation, Housing Discrimination, and Evolution of Public Policy. (1 to 8) (Same as Law M219.) Seminar, three hours; two field trips. Course M219A is enforced requirement to M219B. Consideration of selected aspects of housing law and policy, such as public accommodation, fair housing law, and local government enforcement of fair housing law. Letter grading.

M220. Research Design and Methods for Social Research. (4) (Same as Public Policy M219.) Lecture, three hours; outside study, nine hours. Limited to graduate students. Designed to familiarize students with the use of quantitative and qualitative methods in social science research. Letter grading.

M221. Research Design and Methods for Social Research. (4) (Same as Public Policy M221.) Lecture, three hours; outside study, nine hours. Limited to graduate students. Designed to familiarize students with the use of quantitative and qualitative methods in social science research. Letter grading.

M222. Research Design and Methods for Social Research. (4) (Same as Public Policy M222.) Lecture, three hours; outside study, nine hours. Limited to graduate students. Designed to familiarize students with the use of quantitative and qualitative methods in social science research. Letter grading.
208B. Introduction to Research Design. (4) Seminar; three hours. Required in first or second year of PhD program. Identification of planning problems, formulation of research questions, review of literature and identification of gaps, development of researchable hypotheses, understanding of strengths and weaknesses of qualitative and quantitative methodologies, understanding of threats to validity, review of critiques of traditional methods and of alternative approaches, plan for testing hypotheses. Letter grading.


M216. Current Issues in Food Studies. (4) Formerly numbered 216B. (Same as Community Health Sciences M217.) Seminar, three hours. Limited to Food Studies Graduate Certificate Program students. Food is complex subject given that production, procurement, preparation, consumption, and exchange of edible matter is biologically vital to human growth, development, and function and critical to many aspects of society and culture. Food studies is growing cross-disciplinary field of research, teaching, and advocacy that encompasses and draws from cultural anthropology, geography, food law and policy, urban planning, sociology, literature, history, public health, nutrition, environmental science, molecular and cellular biology, science and technology studies (STS), agronomy, and other domains. Basic knowledge of these wide-ranging topics and disciplines that define food studies. Letter grading.


218A. Graphics and Urban Information. (4) Formerly numbered 218A. Lecture, two hours; studio, one hour. Presentation of basic graphic methods and tools for representation of urban information, from micro to macro scale, and exploration of fundamental aspects of graphic design and presentation programs to create attractive and powerful planning materials and reports, design principles to communicate ideas in clear, succinct, and engaging manner, and use of graphic material to support oral presentations or written reports. Letter grading.

228. Visual Communication Skills. (2) Five-week course. Lecture, two hours; laboratory, one hour. Emphasis on graphic presentation and visual communication to educate stakeholders, advocate for change, and encourage participation in planning process in recent years, in both public and private sector. Visual communication requires analytic skills and strategic thinking, strong foundation in design theory, and technical skills in computer programs. Introduction to Adobe InDesign and Illustrator and foundation in design theory and communication design and presentation programs to create attractive and powerful planning materials and reports, design principles to communicate ideas in clear, succinct, and engaging manner, and use of graphic materials to support verbal presentations or written reports. Letter grading.

229. Special Topics in Planning Methods. (4) Lecture, three hours. Topics in planning methodology selected by faculty members. May be repeated for credit. S/U or letter grading.

M230. Introduction to Regional Planning. (4) (Same as Public Policy M241.) Lecture, three hours. Critical and historical survey of evolution of regional planning practice, with emphasis on relations between regional planning and developments within Western social and political philosophy. Major concepts include regions and regionalism, territorial community, and social production of space. Letter grading.

M231. Global Public Affairs: Governing in Interconnected World. (4) (Same as Public Policy M228B and Sociology M215.) Lecture, three hours. Outside work, nine hours. Conceptually, focus on interplay between three major institutional complexes of modern, globalizing societies and organizations that operate within, through, and in the context of states, markets, and civil society. Study moves between abstract theory and concrete examples, offers sense of where these institutions and organizations have come from, and helps chart their current trajectories. From the perspective of governance, assessment of roles and configurations of institutions and organizations to address today’s challenges. S/U or letter grading.

232. Disaster Management and Response. (4) Lecture, three hours. Through readings and presentations, examination of disaster management and response in both U.S. and developing countries. Exploration of how disaster impacts and risk reduction both relate to and exacerbate social vulnerability, analysis of addition to acts of nature. Structured to allow students to focus on distinct disaster contexts and themes as set out in reading and weekly sessions. Letter grading.

M233. Political Economy of Urbanization. (4) Lecture, three hours. Introduction to new approaches to urban studies, basic concepts and analytical approaches of urban political economy, with major emphasis on American urban political economy of modern metropolis. Topics include historical geography of urbanization, development and transformation of urban spatial structure, suburbanization and sprawl, new political forms of global crisis, and role of urban social movements. Concurrently scheduled with course C133. S/U or letter grading.

M234A. Development Theory. (4) (Same as Geography M229A.) Lecture, three hours. Review of basic literature and schools of thought on development
theory through analysis of impact of mercantilism, colonialism, capitalism, and socialism on various urban and rural social and economic structures in Third World. Presentation, through evaluation of theoretical writings and case studies, of complexity and diversity of development strategies on linkages between policy and rural and urban impacts. Gives stu-
dents important background for courses M234B, M234C, and many other planning courses addressing Third World issues. Letter grading.

M234B. Ecological Issues in Planning. (4) (Same as Geography M229B.) Lecture, three hours. Recommended preparation: course M265. Science and poli-
tics of globalization and planning in light of transformations inherent in global change. How to address these questions in ways that go be-
yond green consumerism and bifurcation of wild, eco-
logical, and human environments. American environ-
mentalism has become dominant model for many conservation practices. Considers the idea of untransmuted nature with people-less set-
asides for spiritual and scientific contemplation of na-
ture; this approach used in environmental policy and as key idea in conservation and fragment biology. At opposite end is environmental planning devoted to in-
frastucture in hyper-human habitats (cities). Explora-
tion of these competing models and many reasons to be skeptical of both in 21st century. Letter grading.

M234C. Resource-Based Development. (4) (Same as Geography M229C.) Lecture, three hours. Recom-
mended preparation: course M264A. Some major is-
mances associated with development of specific natural resources. Topics include nature of particular resource (or region associated with it), its previous manage-
ment, involvement of state, corporations, and local groups, and environmental and social impact of its de-
velopment. Letter grading.

235A. Urbanization in Developing World. (4) Le-
cture, three hours. Course 235A is not requisite to 235B. Questions of urbanization and planning in low and middle-income countries. Case studies from Latin America, Africa, and Asia. Lectures, student presenta-
tions, and policy debates. Letter grading.

235B. Civil Society, Nongovernmental Organiza-
tions, and Social Movements in Developing World. (4) (Lecture, three hours. Questions of civil society, nongovernmental organizations (NGOs), and social movements in low- and middle-income countries. Case studies from Latin America, Africa, and Asia. Lectures, student presentations, and policy debates. Letter grading.

M236A. Theories of Regional Economic Develop-
ment I. (Same as Geography M230A and Public Policy M240.) Lecture, three hours; discussion, one hour. Introduction to theories of location of economic activity, trade, and other forms of contact between re-
gions, including growth and change, and the in-
fluences associated with development of specific natural resources. Topics include nature of particular resource (or region associated with it), its previous manage-
ment, involvement of state, corporations, and local groups, and environmental and social impact of its de-
velopment. Letter grading.

236B. Globalization and Regional Development. (4) (Same as Geography M230B.) Lecture, three hours. Required: course M236A. Application of theo-
ries of regional economic development, location, and trade learned in course M236A to contemporary pro-
cess known as globalization, in looking at the impact and effects of globalization on development, employ-
ment, and social structure, along with implications for policy. Letter grading.

236C. Advanced Workshop on Regions in World Economy. (4) Lecture, three hours. Required: course M236B. Advanced workshop on regional development examining changes in organization of production systems, their geographies, and processes that affect re-
gional economic development and planning environment. Letter grading.

237A. Sectoral Analysis. (4) Lecture, three hours; laboratory, one hour. Introduction to methods and pro-
cedures for studying changes as applied toiegories, industries, companies, and their labor forces. Current theories and conceptions of industrial structure and industrial change. Investigation of characteristics and trends of industry subsectors in Los Angeles resulting in industry profile that can serve as aid to planning and shaping economic development. Letter grading.

237B. Urban and Regional Economic Development Applications. (4) Lecture, three hours. Survey and analysis of economic development strategies in U.S. and other countries. Because economic development strategies seek to modify or shape existing conditions, focus on how policies attempt to harness dynamics associated with new forms of industrialization, intensified global com-
petition, and interrelationships among capital, labor, and state. Letter grading.

237C. Southern California Regional Economy. (4) Lecture, three hours. Introduction to regional economy of Southern California, including eco-

onomic sectors, labor market composition, and review of conflicting portrayals depicting dynamics of region. Two all-day bus tours of key economic regions and guest lectures. Prerequisites: courses 207 and 220A. Examinations currently scheduled with course CM137. Letter grading.

238. Global Labor Markets. (4) Lecture, three hours. Consideration of labor-related programs, policy, and strategy in international and comparative context. Re-
view of major approaches to improving quality, quan-
tity, and access to jobs, including training, regulation, migration policy, organizing strategies, and social safety net. Global in scope, with particular reference to countries of global labor force. Letter grading.

239. Special Topics in Regional and International Development. (4) Seminar, three hours. Topics in urban and regional development selected by faculty members. May be repeated for credit. S/U or letter grading.

240. Local Government. (2 to 6) Lecture, three hours. Analysis of structure and function of local, regional, and state government in historical and institutional context: organization, fi-

nance, intergovernmental relations, role of judiciary, public services, lawmaking, citizen participation through initiatives and referenda, and government tort liability. Letter grading.

242. Poverty and Inequality. (4) Lecture, three hours. Examination of relationship between urbanization and spatial inequality in U.S.—spatial dynamics of urban growth, levels and causes of spatial inequality, and im-

plications of spatial inequality for low-income commu-
nities. Topics include concentrated poverty, residential segregation, immigrant neighborhoods, spatial dispar-
dances in access to opportunities, housing mobility, neighborhood microfinance, urban infrastructure, and political cohesion and participation. Analysis of role of policies in promoting and/or reducing spatial in-
equalities. Letter grading.

244. Urban Poverty and Planning. (4) Lecture, three hours. Examination of determinants of urban poverty, with emphasis on poverty in U.S. and on geographical dimensions of poverty and planning interventions that contribute to poverty reduction. Topics include rela-
tionships between poverty and human and social cap-
it, demographic change, low-wage labor market, spatial concentration of poor, residential segregation, and social policy. Letter grading.

245. Urban Public Finance. (4) Lecture, three hours. Required: courses 207, 220A. Theory and practice of urban public finance, with emphasis on methods used to fund public infrastructure. Topics include fiscal im-
balance analysis of new estate development, effects of taxes on land-use decisions, benefit assessments to finance neighborhood public investment, private and intergovernmental contracting as method of supplying urban public goods, financing urban private development, and municipal bond market. S/U or letter grading.

246. Poverty, Poor, and Welfare Reform. (4) (Same as Public Policy M214 and Social Welfare M290L.) Lecture, three hours. Major policy and re-
search issues concerning poverty and social welfare policy directed toward poor in U.S. or letter grading.

247. Planning for Multiple Publics. (4) Lecture, three hours. Exploration of planning needs of various social groups in urban settings, using existing literature and research studies to determine appropriate me-

M248. Law and Poor. (4) (Same as Public Policy M295 and Social Welfare M290L.) Lecture, three hours. Designed for graduate students. Study of major income-maintenance programs in U.S., with emphasis on interaction of moral attitudes toward poor and structure and implementation of law, policy, and ad-

ministration. Current reform consensus and major re-
forms. Letter grading.

249. Special Topics in Transportation Policy and Planning. (4) Lecture, three hours. Topics in transpor-
tation policy and planning simulated by faculty mem-
bers. May be repeated for credit. S/U or letter grading.

M250. Transportation, Land Use, and Urban Form. (4) (Same as Public Policy M220.) Lecture, three hours. Historical evolution of urban form and transporta-
tion systems, intrametropolitan location theory, re-
cent trends in urban form, spatial mismatch hypoth-
esis, jobs/housing balance, transportation in strong central city and polycentric city, neotraditional town planning, debate, rail transit and urban form. Letter grading.

251. Transportation and Land Use: Parking. (4) (Formerly numbered 251.) Lecture, three hours. Requi-
site: course 207. Parking is misunderstood link be-
tween transportation and urban planning. Transportation en-
gineers typically assume that free parking simply is there at end of most trips, while urban planners treat parking as transportation issue that engineers must study. No profession is intellectually responsible for parking, and everyone seems to assume that someone else is doing hard thinking. Mistakes in plan-
ning for parking help to explain why planning for trans-
portation and land use has in many cases gone slowly, subtly, incrementally wrong. Study of theory and prac-
tice of planning for parking and examination of how planning for parking in U.S. has become planning for free parking. Exploration of various methods for improve-
ning parking, transportation, and land use. Concur-
rently scheduled with course CM151. Letter grading.

252. Transportation and Land Use: Transportation and Urban Design Studio. (4) Studio, three hours. Students of different backgrounds and interests col-
laboratively and individually analyze and propose solutions for actual transportation planning and urban design problems. Course requires in-depth research studies to determine appropriate me-
chanisms of planning for multiple publics. Analysis of components of sustainable transportation systems. In re-
sponse to growing concerns about access, safety, public health, equity, climate change, and community sustainability issues, many government agencies and private developers are planning to improve pedestrian and bicycle transportation. These problems are complex, and students learn how public policy and planning need to consider issues related to land use and transportation planning, public health, and environment. Detailed knowledge provided of various bicycle and pedestrian facilities and how to create appropriate conditions for improvements in urban transportation planning in context of overall street de-
sign. Essential components of bicycle and pedestrian planning, including policies, programs, funding, and advocacy. In-class exercises and out-of-class plan-
ing projects. Letter grading.
costs and cost allocation, truck charges, congestion
private participation in road finance, toll roads, road
portation finance; historical evolution of highway and
three hours. Overview of transportation finance and
biomimicry, and local economies at district or neigh-
performance-based methods for addressing issues of
260B. Green Urban Studio: Designing Living Neigh-
boys and communities. Letter grading.
269. Special Topics in Environmental Analysis and
778  / Urban Planning

can be improved. Letter grading.
265. Environmentalism: Climate Dimensions and
Politics, Past, Present, Future. (4) (Same as Ge-
ography M265.) Lecture, three hours; discussion, one
hour. Review of environmental policies and their prac-
tices in dynamic U.S. and international contexts. Is-
sues of climate change, scenario planning, and matrix
ecology and its implications in both urban and rural settings.
Study moves between debates in theory
and debates in practice. Letter grading.
265C. Food Systems. (4) Lecture, three hours. Re-
view of array of food and production systems, sys-
tems of distribution, and systems of consumption to
address most wicked problems on plan-
tary biodiversity, landscapes, climates, and social sys-
tems. Letter grading.
C266. Global Environment and Development: Prob-
lems and Issues. (4) Lecture, three hours; discussion,
one hour. Questions of resource use, Third World poverty, and environment. Analysis of global
economic restructuring and its connections to
changing organization of production and resulting en-
vironmental impacts. Case studies from Africa, Latin Americas, Asia, and U.S. Concurrently scheduled with
course CM166, S/U or letter grading.
M270. Homelessness: Housing and Social Service
Issues. (4) (Same as Social Welfare M206A.) Lecture,
90 minutes; discussion, 90 minutes; one field trip. Re-
view of current status of homelessness: who home-
less are, what services and housing are available, and housing policies—appropriate architecture, management, and sources of funding.
Outside speakers include providers of services to homeless. Letter grading.
271A. Community Economic Development. (4)
Lecture. Introduction to fundamentals of community economic development and neighborhood development strategies. Overview of basic ap-
proaches, important concepts and language, and major strategies for revitalization of low-income neighborhoods. Letter grading.
C271B. Labor and Economic Development. (4)
Lecture, three hours. Exploration of economic develop-
ment and identification of ways that labor and labor
unions directly and indirectly influence and shape eco-
nomic development. Wide range of roles that labor
plays, and could play, in promoting and supporting economic development for all. Concurrently sched-
uled with course CM172. Letter grading.
272. Real Estate Development and Finance. (4)
(Same as Architecture and Urban Design M272.) Lecture,
two hours; workshop, two hours; outside study, eight
hours. Requisite: CM166. Recommended for first-year students in community develop-
ment and built environment area of concentration. In-
troduction to real estate development process specifi-
cally geared to students interested in urban design. Financial decision model, market studies, designs, loan packages, development plan, and feasibility studies. Lectures and projects integrates development process with proposed design solutions that are interactively modified to meet economic feasi-
bility tests. S/U or letter grading.
272B. Advanced Real Estate Studio. (4) Studio,
three hours. Study combines disciplines of planning, urban design, construction, and in-
vestment, and property operations and management. Students learn about behind-the-scenes negotiations and decisions, and how to determine real estate project feasibility, deeper understanding about financing methods and alternatives, and knowledge about ways to frame development programs for suc-
cess. Letter grading.
273. Site Planning. (4) Lecture, 90 minutes; labora-

tory, 90 minutes. Requisite: course 274. Introduction to principles of site planning for urban areas. S/U or letter grading.
274. Introduction to Physical Planning. (4) Lecture/
workshop, 90 minutes; discussion, 90 minutes. De-
sign for students with no prior physical planning
background and for first-year MA students in commu-
nity development and built environment, design and
development, and real estate development. Introductory overview of physical planning, land use, site analysis, and surveys; regula-
tory structures and social/community impacts. Letter grading.
M275. Community Development and Housing Poli-
cies: Roles of State, Civil Society, and Nonprofits. (4)
(Same as Public Policy M243 and Social Welfare M275.) Lecture, three or
nine hours. Designed for graduate students. Examination of role of U.S. housing policy and role of government agencies and community organizations. Is problem poverty or economic development? Should interven-
tions be directed toward inner city housing markets or through neighborhood strategies? What lessons can be learned from experiences of other countries? Letter grading.
M276A-276B. Urban Housing, (1 to 8 each) (Same as Law M287.) Lecture, three hours. Course M276A is enforced to requisites 276B. Examination of past 40 years of federal and state programs to stem urban de-
cay and improve housing in U.S.; comparison and contrast of legal and policy initiatives in areas of public housing, housing segregation, mortgage subsidies, landlord/tenant law, urban renewal, and community organization. Research paper required. In Progress (M276A) and S/U or letter grading (276B grading).

278. More Jobs, Better Work: Jobs and Policy. (4) Lecture, three hours. Central issues in urban economic development is—how to create them, how to help those populations get access to them, and how to ensure that they are of adequate quality in terms of wages, advancement, and skill development. Examination of how urban labor markets work and what can be done to help them work better, with focus on U.S. particular emphasis on low-wage, low-skilled workers and marginalized groups, such as inner-city neighborhoods. Exploration of how urban labor markets work with discussions of policy options for making them work better and range of solutions, including job creation, workforce training, job ladder creation, urban and community organizing, and immigration reform. Examination of power and economic inequality and how to make changes. Letter grading.

279. Seminar: Public Space. (4) Seminar, three hours. Changes in production, consumption, design, and meaning of public space and analysis of socioeconomic, political, and cultural factors that lie behind them. Letter grading.

280. Affordable Housing Development. (4) Lecture, three hours. Changes in production, consumption, design, and meaning of public space and analysis of socioeconomic, political, and cultural factors that lie behind them. Letter grading.

281. Introduction to History of Built Environment in U.S. (4) Lecture, two hours; discussion, one hour. Overview of basic concepts and skills utilized in nonprofit development initiatives, especially by community-based organizations. Focus on nonprofit provision of subsidized housing, emphasizing way professionals broker debt and equity funding from private, governmental, and philanthropic sources. Use of client projects and negotiation exercises. S/U or letter grading.

282. Urban Design: Theories, Paradigms, Applications. (4) Lecture, three hours. Discussion and evaluation of philosophical bases, ideologies, and paradigms of urban design in last century; examination of how these are reflected on built environment of cities. Letter grading.

283. Community Research and Organizing. (4) Lecture, three hours. Examination of theory and practice of organizing, analysis of role of community organizing as empowerment strategy in disadvantaged and marginalized communities, and relationship of community and worker organizing to broader movements for social change. Analysis of different research methods and strategies in terms of best supporting organizing and movement building, with focus on community-based participatory research (CBPR). Understanding of theories, principles, and strategies of CBPR, appreciation of advantages and limitations of this approach, and skills necessary for participating effectively in CBPR. Discussion of depth of one organizational model and participation in ongoing research project that supports one local community or worker organization, exploring links between research and organizing campaign to which it is connected. Particular attention to race, gender, and class dimensions of CBPR and issues of power and decolonizing research. Letter grading.

284. Looking at Los Angeles. (4) Lecture, three hours. Introduction to history and physical form of Los Angeles, with emphasis on understanding social, economic, and political issues in development of Los Angeles. Concurrently scheduled with course C285. Letter grading.

287. Politics, Power, and Philanthropy. (4) Same as Public Policy M227 and Social Welfare M290S. Lecture, three hours; outside study, nine hours. Use of political economy perspective to analyze forces that have shaped rise and characteristics of nonprofit sector and its constituent elements. Examination of social history of nonprofit sector in U.S. Examination of legal and policy environments and distinct organizational forms. Comparative perspective between U.S. and other countries. S/U or letter grading.

M286. Leadership, Development, and Governance of Nonprofit Organizations. (4) Same as Public Policy M228 and Social Welfare M241E. Lecture, three hours; outside study, nine hours. Designed for graduate students. Various patterns of community action to improve their social environment. Examination of the strategic and field experience directed toward study of social problems within context of community planning; emergent forms of political, economic, and social planning within framework of social change theory. Letter grading.

289. Prasad and Smart Growth. (4) Lecture, three hours. Suburbs are not new, but metropolitan areas in U.S. and elsewhere continue to grow rapidly at their edges in ways that many consider poorly planned. Discussion of causes and impacts of sprawl as it relates to smart growth. Letter grading.

M290. Strategic Planning for Public and Nonprofit Organizations. (4) Same as Public Policy M247 and Social Welfare M1241F. Lecture, three hours; outside study, nine hours. Designed for graduate students. Technical problems of solving problems at substations social welfare problems at community level. This form of community practice fills niche between professional and knowledge and skill sets possessed by agency and program administrators on one hand and by technical researchers and analysts on other. Letter grading.


M293. Politics, Ideology, and Design. (4) Same as Architecture and Urban Design M293. Lecture, three hours. Exploration of cultural and political context of architecture and planning work. Examination of theory and practice from variety of perspectives applied to set of varied physical environments and to set of current spatialized concepts. Consideration of theoretical propositions that are shaping present urban and architectural debate and concrete case studies where politics and ideology shape design process. Letter grading.

294. Housing in Developing Countries: Policy Objectives and Options. (4) Lecture, three hours. Examination of role of policy and the intended and unintended effects on housing demand and supply in developing countries. How definitions of housing problems, and scope of solutions, has changed over time. Critical assessment of some key solutions that have been tried in past, their advantages and shortcomings, and resultant trade-offs, and likely directions for future housing policy. Letter grading.

M295. Introduction to Urban Humanities. (4) Same as Architecture and Urban Design M295. Seminar, six hours; studio, six hours. Core introduction to urban humanities. Analytical and descriptive methods of humanities paired with speculative and projective methods of architectural and urban design to better understand contemporary state of human environment. Focus on Los Angeles, with concepts seminar, methods laboratory, projects studio, and site visit components. Offered in summer only. S/U or letter grading.

297. Current Issues in Urban Planning. (2 to 4) Seminar, three hours. Current issues in urban planning selected by students in conjunction with faculty members. May be repeated for credit. S/U grading.

298. Special Topics in Emerging Planning Issues. (2 or 4) Seminar, three hours. Topics in newly emerging planning issues such as role of cutting-edge technology, innovative policies, and experimental programs. May be repeated for credit. Letter grading.

375. Teaching Apprentice Practicum. (1 to 4) Seminar to be arranged. Preparation: apprentice personnel employment as teaching assistant, associate, or fellow. Teaching apprenticeship under active guidance and supervision of regular faculty member responsible for curriculum development at UCLA. May be repeated for credit. S/U grading.

M404. Joint Planning/Architecture Studio. (4) (Same as Architecture and Urban Design M404.) Lecture, one hour; discussion, one hour; studio, four hours. Opportunity to work on joint planning/architecture project for client. Outside speakers; field trips. Examples of past projects include Third Street Housing, Santa Monica; New American House for nontraditional housing program, Pico-Robertson Housing, Boyle Heights; working with resident leaders at Los Angeles City public housing developments. S/U or letter grading.

M470. Improving Worker Health: Social Movements, Policy Debates, and Public Health. (4) (Same as Community Health Sciences CM470 and Environmental Health Sciences CM471.) Lecture, three hours; fieldwork, two hours. Examination of intersection between work, health, and environment, analysis of social causes of health disparities, investigation of historical trends and social movements, interpretation of current policy debates, and development of innovative strategies. S/U or letter grading.

496. Field Projects. (4) Tutorial, four hours. May not be repeated for credit. S/U grading.

501. Cooperative Program. (2 to 8) Tutorial, to be arranged. Preparation: consent of UCLA graduate advisor and graduate dean, and host campus instructor, department chair, and graduate dean. Used to record enrollment of UCLA students in courses taken under cooperative arrangements with USC. S/U grading.

596. MA Research in Planning. (2 to 4) Tutorial, one and one-half to three hours. May be repeated once for credit for maximum of 8 units. S/U grading.

597. Preparation for MA Comprehensive Examination or PhD Qualifying Examinations. (4 to 12) Tutorial, four hours. May be repeated for credit by PhD students. S/U grading.

598. Preparation for MA Thesis in Urban Planning. (4) Tutorial, four hours. May be repeated but may be applied toward degree only once. S/U grading.

599. PhD Dissertation Research in Planning. (2 to 12) Tutorial, to be arranged. May be repeated for credit. S/U grading.

UROLOGY

David Geffen School of Medicine
379 Wasserman Building
Box 957381
Los Angeles, CA 90095-7383

Urology
310-794-8492
Mark S. Litwin, MD, MPH, FACS
Fraenkel Foundation Professor of Urology

Scope and Objectives
The fundamental goal of the Department of Urology is to teach medical students the general principles of diagnosis and management in diseases of the genitourinary tract. Urology encompasses a wide scope of human illness, including conditions

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that are congenital and acquired, pediatric and adult, male and female, malignant and benign. The department functions to acquaint students with the skills necessary to manage these conditions in the initial stages and over the long term.

Instruction spans all four years of the undergraduate medical school curriculum but is concentrated during the clinical rotations. Students spend two weeks on the urology service during the third year and may return for an additional three-week elective rotation during the fourth year. The clinical experience includes time spent in the faculty and resident clinics, on ward rounds, and in didactic conferences that cover general urology, urological subspecialties, uropathology, and uroradiology. Urology teaching settings include the Reagan UCLA, Harbor-UCLA, Olive View-UCLA, Santa Monica-UCLA, and West Los Angeles VA medical centers.

For more details on the Department of Urology and courses offered, see the department website.

Scope and Objectives

The Visual and Performing Arts Education minor is an interdisciplinary and interdepartmental series of courses designed to (1) introduce students to the field of arts education for multiple publics in general and specifically in relationship to the K-12 public school system, (2) introduce students to the profession of the teaching artist and to a broad range of careers in the arts, including K-12 teaching, community arts education, museum education, creative arts therapies, and arts advocacy and to a variety of arts-related programs and cultural agencies, including community arts centers, museums, after-school programs, and nonprofit arts institutions, (3) expand the ongoing dialogue and interaction between UCLA, extended Los Angeles community, K-12 public school system, and students in the arts, and (4) extend the School of the Arts and Architecture commitment to UCLA and community partnerships by linking teaching and research with undergraduates, civic engagement, and support for institutional priorities to improve the quality of life for Los Angeles residents.

Undergraduate Study

Visual and Performing Arts Education Minor

The Visual and Performing Arts Education minor is intended to supplement the education of undergraduate students enrolled in the Architectural Studies, Art, Art History, Dance, Design, Media Arts, Ethnomusicology, Music, Theater, and World Arts and Cultures majors.

To apply to the minor, students must have completed at least 50 percent of the lower-division requirements of their specific majors and Arts Education M102 with a grade of B or better, be in good academic standing with an overall grade-point average of at least 2.7, and submit a minor application, which includes a concentration proposal to be developed in consultation with the Visual and Performing Arts Education director.

 Required Courses (28 to 32 units with a minimum of 24 upper-division units): (1) Core and capstone sequence requirement: Arts Education M102, M192, M192SL. (Arts Education M192 and M192SL include a guided teaching experience), (2) arts education requirement: two courses selected from Arts Education 20, 101, 103, 105, 195 (minimum 4 units), 197 (minimum 4 units), (3) one upper-division education course (list of recommended courses available from the Arts Education program office or the school Office of Student Services), and (4) one upper-division elective course (minimum 4 units) selected from arts education or, by petition, an arts education related course (list of recommended courses available from the Arts Education program office or the school Office of Student Services).

A minimum of 20 units applied toward the minor requirements must be in addition to units applied toward major requirements or another minor.

Each minor course must be taken for a letter grade. Successful completion of the minor is indicated on the transcript and diploma.

Arts Education

Lower-Division Courses

19. Fiat Lux Freshman Seminars. (1 Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

20. Introduction to Community Engagement through Arts. (8 Lecture, three hours; discussion, one hour; outside study, 11 hours. Introduction to fields of community engagement and arts education informed by philosophies of progressive education and social justice movements. By looking at community engagement as issue of equity and social justice, examination of basic theories of creativity, artistic development, and community partnership, and history, philosophies, politics, and sociocultural trends of community engagement in American society. Attendance at UCLA arts presentations and introduction to creative process. Readings and discussions to understand community engagement and arts education as crucial elements of comprehensive education, with emphasis on writing projects including regular writing assignments that require students to read, analyze, critique, and evaluate community arts practices and arts education scholarship. P/NP or letter grading.

Upper-Division Courses

101. Selected Topics in Arts Education. (4 Lecture, three hours; outside study, nine hours. Selected topics in arts education explored through various approaches that may include community projects, guided teaching experiences, studio and/or fieldwork, readings, discussion, research papers, and oral presentation. Topics announced in advance. May be repeated for maximum of 8 units. P/NP or letter grading.

M102. Introduction to Arts Education for Multiple Publics: Theory and Practice. (4 Same as Education M104.) Seminar, three hours; outside study, nine hours. Introductory course designed to provide an introduction to arts education in multiple contexts. Study of core issues in arts education, creativity, and social justice as students develop, implement, and assess original syllabi, lesson plans, and community learning projects for multiple publics in inner-city settings. Study of core issues in arts education, creativity, and social justice as students develop, implement, and assess original syllabi, lesson plans, and community learning projects for multiple publics in inner-city settings. Study of core issues in arts education, creativity, and social justice as students develop, implement, and assess original syllabi, lesson plans, and community learning projects for multiple publics in inner-city settings.

Collaboration with partner schools in planning, teaching, and evaluation of arts education programs in dance, music, theater, and visual arts. P/NP or letter grading.

103. Socially Engaged Pedagogy in Arts. (4 Lecture, three hours; outside study, nine hours. Students in arts education explore various approaches that may include community projects, guided teaching experiences, studio and/or fieldwork, readings, discussion, research papers, and oral presentation. Topics announced in advance. May be repeated for maximum of 8 units. P/NP or letter grading.

104. Seminar (1 Seminar course. Three hours. Junior- to senior-level seminar course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

Visual and Performing Arts Education Minor

Interdisciplinary Minor

School of the Arts and Architecture

2101 Broad Art Center
Box 951620
Los Angeles, CA 90095-1620

Visual and Performing Arts Education

310-794-4822

Minor e-mail

David J. Rousséve, BA, Chair

Faculty Committee

Lily Chen-Hatfield, PhD (Music)
Perry M. Daniel, MFA (Theater)
David H. Gere, PhD (World Arts and Cultures/Dance)
Kevin M. Kane, PhD (Arts and Architecture)

Victoria E. Marke, BA (World Arts and Cultures/Dance)
Lauren L. McCarthy, MFA (Design/Media Arts)
Chandler McWilliams, MFA, MA (Design/Media Arts)
Hirsch Perlman, BA (Art)
Karen Hunter Quartz, PhD (Education)
David J. Rousséve, BA (World Arts and Cultures/Dance)
site that is currently utilizing socially engaged pedagogies and art-making strategies. Theoretical and experiential components provided for students from all arts disciplines to explore tactics and strategy of socially engaged pedagogy and arts practice through variety of approaches that may include readings, visual and audio documentation, discussion, research papers, oral presentations, and relevant guest speakers. P/NP or letter grading.

105. Arts Programs in Correctional Institutions: History, Theory, and Practice. (4) Lecture, three hours; outside study, nine hours. Examination of attitudes of prison arts programming with correctional staff, staff working in prisons, political figures, and community while critically engaging with consequences of correctional environment without outside influence of arts as role model for inspiration and discipline. Selected topics and themes in arts education in correctional institutions explored through variety of approaches that may include readings, visual and audio documentation, discussion, research papers, oral presentations, and relevant guest speakers. P/NP or letter grading.

189. Advanced Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to undergraduate lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.


M192SL. Arts Education Undergraduate Practicum and Capstone Project. (4) (Same as Education M190SL) Seminar, three hours; practicum, three hours; outside study, six hours. Enforced requisites: courses M102, M192. Limited to juniors/seniors. Continuation of arts education training and supervised practicum for advanced undergraduate students participating in Visual and Performing Arts Education minor. Students continue to implement and evaluate original arts education programs under guidance of faculty members and designated guiding teachers in K-12 public school settings. May be repeated for credit with consent of instructor. P/NP or letter grading.

195. Community Internships in Arts Education. (2 to 4) Tutorial, one hour; fieldwork, eight to 10 hours. Limited to juniors/seniors. Internship in supervised setting in K-12 schools or community arts organizations. Students meet on regular basis with instructor and provide periodic reports of their experience. May be repeated for maximum of 8 units. Individual contract with supervising faculty member required. P/NP or letter grading.

197. Individual Studies in Arts Education. (2 to 4) Tutorial, to be arranged. Preparation: 3.0 grade-point average in major. Limited to juniors/seniors in Visual and Performing Arts Education minor and/or arts education teaching sequence. Individual intensive study, with scheduled meetings to be arranged between faculty member and student. Tangible evidence of mastery of subject matter required. May be repeated for credit. Individual contract required. Letter grading.

**World Arts and Cultures/Dance**

School of the Arts and Architecture

150 Kaufman Hall
Box 951608
Los Angeles, CA 90095-1608

World Arts and Cultures/Dance
310-825-3951

Department e-mail

Dan Froot, MFA, Chair
Aparna Sharma, PhD, Undergraduate Vice Chair
Cheng-Chieh Yu, MFA, Undergraduate Vice Chair
Anurima Banerji, PhD, Graduate Vice Chair

**Professors**

Kyle G. Abraham, MFA, in Residence
Susan L. Foster, PhD
Dan Froot, MFA
David H. Greer, PhD
Victoria E. Marks, BA
Peter Naboresh, PhD
Janet M. O'Shea, PhD
Lionel A. Popkin, MFA
Allen F. Roberts, PhD
David J. Rousselle, BA
Peter M. Sellars, BA
David Delgado Shorter, PhD
Patricia A. Turner, PhD
Christopher A. Waterman, PhD
Cheng-Chieh Yu, MFA

**Professors Emeriti**

Judith B. Alter, EdD
Donald J. Cosentino, PhD
Irina Dosamantes-Beaudry, PhD
Elise A. Dunin, MA
Pia S. Gilbert
Michael O. Jones, PhD
Angelica S.-Y. Leung, MA, CMA
Judy M. Mitoma, MA
Colin H. Quigley, PhD
Marta E. Savigliano, PhD
Carol J. Scottorn, MA
Doris Siegel
Alegra F. Snyder, MA
Emma Lewis Thomas, PhD

**Associate Professors**

Bryon R. Bain, MA, JD
Anurima Banerji, PhD
Aparna Sharma, PhD

**Assistant Professor**

Tria Blu Wakpa, PhD

**Lecturers**

Gracie C. Coad, MA
Robert W. Eun, BA
Leigh R. Foaad
Ginger Holguin, BFA
Jackelyn G. Lopez, BA
Katherine M. Smith, PhD
Ken Swift
Natsuo Tomita
Jason C. Tsou, MS
Margaret J. Williams
Aimee Wodobode, BA

**Adjunct Associate Professor**

Ann M. Carlson

**Adjunct Assistant Professor**

Roslyn K. Warby

**Scope and Objectives**

Defined by a dynamic blend of theory and practice, the Department of World Arts and Cultures/Dance (WACD) is led by a renowned faculty of scholars, activists, curators, filmmakers, and choreographers dedicated to critical cross-cultural analysis and art-making. The department is the place to make dances, explore digital media, curate exhibitions, become an arts activist, and develop scholarly expertise in culture and the arts. Multiple disciplines and artistic approaches are used to encourage students to position their work within broad social contexts.

In the World Arts and Cultures BA arts activism, visual cultures, and critical ethnographies are emphasized. The Dance BA integrates composition, training, and improvisation, while challenging students to locate dance politically, culturally, and historically. The MFA in Choreographic Inquiry promotes adventurous choreographic inquiry and engages with global discourses around the body and performance. The MA/PhD programs address theories of corporeality, performance, visuality, and culture, and offer interdisciplinary training that fosters independent research. The Art and Global Health Center enables undergraduate and graduate students to explore art as a life-saving activity.

The path-breaking programs of the department are committed to academic excellence, diversity, freedom of expression, activism, and social transformation through the arts.

The undergraduate program offers majors in Dance and in World Arts and Cultures. The BA in Dance thoroughly integrates learning to dance, learning to make dances, and critical interrogation of dance as a cultural practice. Students study a variety of dance techniques from around the world throughout their studies. They enroll in a four-term sequence in dance composition, with additional opportunities to participate in the creation of their own dances, as well as working as dancers in the creation of new works by faculty members and visiting artists. Further, they engage in a core of four courses in the study of scholarly discourse around the body and dance, launching a critical inquiry into their own study of bodily practices, internalization of the embodied experience, and how bodily ideas and embodied experiences are interpreted and communicated outwardly and interpersonally, both locally and globally.

The BA in World Arts and Cultures highlights culture and representation as key perspectives for understanding creativity in local and global arenas. Three streams of cross-cultural and interdisciplinary study are available: arts activism, critical ethnographies, and visual cultures. These streams define the department commitment to a range of practices, including ethnography, activism, visual and related expressive arts, documentary and short films, museum and curatorial studies, performance, and other creative perspectives and methods. Courses combine theory and practice and are grounded in culturally diverse artistic expressions.
All students are encouraged to complement the required set of core and elective departmental courses with others offered across campus, such as courses from ethnic and area studies programs, and may organize their course of study in relation to particular interests or professional goals (e.g., international comparative studies, intercultural studies, education, area specializations such as Africa, Asia, or Latin America, minority discourse, gender studies).

The graduate program offers Master of Arts and PhD degrees in Culture and Performance and a Master of Fine Arts in Choreographic Inquiry. Culture and performance studies research communities, cultures, and transnational movements through heritage and globalization studies, multivocal ethnographies, dance and theories of corporeality and embodiment, visual and material culture, critical museum and curatorial studies, documentary practice and Internet interventions, as well as arts activism and interdisciplinary art making. The MFA in Choreographic Inquiry offers opportunities to engage multiple movement practices as students work on pioneering research in the form of new choreography. Students may focus on media, dance studies theory, and theories of the body as supplements to their work as choreographers. The Art and Global Health Center within the department presents further opportunity for learning and practice.

While operating with considerable independence, the two graduate degree areas are unified by the department’s common concern for aesthetic production, corporeality and performance, the dynamics of tradition, and culture-building in contemporary societies. Connections are forged between critical theory and artistic practices, and attention is given to the changing social roles and responsibilities of artists, practitioners, and scholars of the arts in the U.S. and worldwide.

Undergraduates and graduates have excelled in fields including technology and the arts, videography, documentary work, public service, education, theatrical/events production, performing arts, urban planning, law, environmental activism, public health, and medicine. They have made careers in community nonprofits and activist groups, government arts agencies, museums, and arts foundations. Potential careers for MA, PhD, and MFA graduates also include positions in research universities and colleges, and MFA graduates are active as choreographers/performers in their own companies or with other professional organizations.

Undergraduate Study

Dance BA

All students take a set of courses as preparation for the Dance major that focus on the integration of dance and critical analysis. For students who transfer into the major, depending on the year of entry and prior coursework, lower-division preparatory coursework may be waived or substituted. When students enter the major, they continue their studies of dance technique, composition, and analysis, and they also enroll in a primary and secondary research area.

The three research areas are (1) creative inquiry as research, (2) critical dance studies, and (3) dance and civic engagement. The creative inquiry area is grounded in contemporary choreography with a focus on dance-making and performing in a wide range of genres from throughout the world. Opportunities are provided for students to present their own choreography, to participate in performances by others, and to study performance production and videography. The critical dance studies area focuses on study of scholarship examining the body and dance, in their cultural and historical contexts. Courses in dance history, dance and culture, and dance as an identificatory practice are offered that enable students to analyze the rhetorical and ideological significance of dance. The dance and civic engagement area is grounded in the investigation and activist-oriented work of artists and the role of dance in the public sphere, and offers a wide range of courses in the nature of activism as well as opportunities for fieldwork, education internships, and other forms of community involvement.

Students select one area as their primary area and another as their secondary area. Elective options provide further deepening of student knowledge and skills in any or all of the areas. Students may also consider courses from programs outside the department and may organize their course of study in relation to their particular interests.

Students who wish to confer with the departmental student affairs officer regarding program planning and major requirements should contact the undergraduate counselor at 310-825-8537.

Learning Outcomes

The Dance major has the following learning outcomes:

- Choreography of dances in various settings, cultural contexts, and media, with emphasis on progressive approaches
- Creative problem-solving of issues tied to arts and activism, dance-making, and producing in multiple formats, in an intercultural and interdisciplinary context
- Think critically about the relationship between aesthetics and politics through choreography, written analysis, and multiple research methods
- Demonstrated advanced proficiency in at least two movement disciplines
- Analysis of vocabulary, location, and syntax of dance works
- Analysis of political, cultural, and historical implications of dance works
- Demonstrated ability to understand and implement collaboration in an art-making practice
- Written and oral recognition and synthesis of key concepts in critical dance studies

Admission

New students are admitted to the Dance major for fall quarter only. All applicants are reviewed individually, based on submission of a written research paper, transcripts, two letters of recommendation, and one personal essay. These supplementary materials are requested from students in mid-December, after the general UC application is received and processed, and are due back in the department by January. For freshman applicants, college placement test scores are also considered. Students must participate in a late January/early February audition. Specifics about the audition are included in the e-mail requesting the above-mentioned supplementary materials.

Change of major applications are considered once a year. Current UCLA students who petition to change their major are required to meet with the student affairs officer prior to application, but no later than the eighth week of fall quarter in order to participate in the departmental supplemental application process during fall/winter quarters for admission into the program the following spring or fall quarter. They are required to take selected departmental courses before and during the term in which they apply to the program (contact the student affairs officer for a list of selected courses). They must have a minimum 2.0 overall grade-point average, a minimum 2.0 GPA in all departmental courses taken, and no more than 90 quarter units at the time of application. All students are required to audition in early winter quarter and may be interviewed as part of the application process.

Preparation for the Major

Required: Dance 1, 16, 44, 45, 67A, 67B, 70.

The Major

The Dance major consists of 76 units of coursework.

Required: (1) Dance 101, 117A, 117B and (2) 10 units in the primary area and 5 units in the secondary area selected from the following: (a) creative inquiry as research—Dance 114, 116, 117C, C122, 169, 170, C171, 174A, 174B, C180, or other upper-division courses with faculty approval; (b) critical dance studies—Dance C145, C152, M157, 158, 159, 160, C168, C171, 182, World Arts and Cultures 199, or other upper-division courses with faculty approval; (c) dance and civic engagement—Dance 165, 166, 167, C184, World Arts and Cultures 100A, 100B, 103, 114, 144, 160, 177SL, 195, or other upper-division courses with faculty approval (no more than 8 units of courses 114 and/or 160 may be applied toward this area). Students also have the option to propose a senior honors project through Dance 186A and 186B.

Movement Arts/Dance Practices—Required: A total of 48 units of practice courses. A minimum of two technique courses per term until completion is strongly recommended. Thirty of the total 48 units must be selected from Dance 6, 9, 13, 56, 59, 63, 65, C106A, C119A, C115, 116. Of these 30 units, a minimum of 6 units of a first style and 4 units of a second style must be at the advanced level. Eighteen of the total 48 units may be selected from Dance 5, 10, 11, 12, 16, 52, 60, C122A, 116, 159, 160, World Arts and Cultures 55, 78, 80, 178. No more than 8 units of World Arts and Cultures 78 or 178 may be applied toward this requirement.

Senior Honors Project

Students may participate in a senior honors project consisting of 10 additional units. The project provides students with opportunity to demonstrate mastery and integration of knowledge and learned abilities from the major. The project may take various forms—from choreographic performance
Admission
New students are admitted to the major for fall quarter only. All applicants are reviewed individually, based on submission of a written research paper, transcripts, two letters of recommendation, and one personal essay. These supplementary materials are requested from students in mid-December, after the general UC application is received and processed, and are due back in the department in January. For freshman applicants, college placement test scores are also considered.

Change of major applications are considered once a year. Current UCLA students who petition to change their major are required to meet with the student affairs officer prior to application, but no later than the eighth week of fall quarter in order to participate in the departmental supplemental application process during fall/winter quarters for admission into the program the following spring or fall quarter. They are required to take selected departmental courses before and during the term in which they apply to the program (contact the student affairs officer for a list of selected courses). They must have a minimum 2.0 overall grade-point average, a minimum 2.0 GPA in all departmental courses taken, and no more than 90 quarter units at the time of application. Students may be interviewed as part of the application process.

Preparation for the Major
Required: World Arts and Cultures 1, 20, 24, 33, and one 5-unit elective selected from course 22, 22M, or 51W.

The Major
The World Arts and Cultures major consists of 45 units of coursework.
Required: (1) World Arts and Cultures 100A or 100B, 104, 124; (2) a total of 20 units with a minimum of 12 units from one stream: stream 1 (arts activism)—World Arts and Cultures 103, 114, 120 (with faculty approval), 144, C146, C158, C159, 160, C164, CM168, 174A, 174B, 177FL, 195, 199, or other upper-division courses with faculty approval (no more than 8 units of courses 114 and/or 160 may be applied toward this stream), stream 2 (critical ethnographies)—courses 120 (with faculty approval), 121, 132, C139, C140, C141, C142, C146, C150, C151, 174A, 174B, 181, 195, 199, or other upper-division courses with faculty approval; and (3) courses 186A and 186B (senior honors project) or equivalent coursework with faculty approval.

Senior Honors Project
All students must also complete World Arts and Cultures 186A and 186B (or 10 units of equivalent coursework with faculty approval), the required senior honors project which must be selected from each student’s area of inquiry. Students begin to identify a project in spring quarter of their junior year and submit a senior project proposal for faculty approval by the beginning of the senior year. They begin to work with a designated faculty adviser in fall quarter of the senior year. Projects may include written theses, visual ethnographies, documentation, installations, short films, internship, community service, field-based research, and curatorial projects, as well as other formats. Projects are crafted in close consultation with a faculty adviser so as to provide capstone experiences that draw together ideas and abilities from four years of study, while positioning students for postgraduate opportunities for further study or for entrance to job markets.

Graduate Study
Official, specific degree requirements are detailed in program requirements for UCLA graduate degrees, available at the Graduate Division website. In many cases, more detailed guidelines may be outlined in announcements, other publications, and websites of the schools, departments, and programs.

Graduate Degrees
The Department of World Arts and Cultures offers Doctor of Philosophy (PhD) degree in Culture and Performance (a master’s degree may be earned in the process of completing PhD requirements) and a Master of Fine Arts (MFA) degree in Choreographic Inquiry.

Dance
Lower-Division Courses
1. Global Perspectives on Dance. (5) Lecture, three hours; discussion, one hour. Examination of practices of choreography, improvisation, and technique in different cultural settings and historical eras. Introduction to field of dance studies through analysis of broad spectrum of philosophies and practices within global context, with focus on creative act of dance-making, thinking and understanding act of improvising, and diverse ways of training one’s body. By framing process of analysis within array of historical periods and cultural settings, development of capacity to engage with dance as lived social and artistic practice while refining critical seeing, thinking, and writing skills. P/NP or letter grading.
2. Moving Voice. (Formerly numbered World Arts and Cultures 5) Studio, three hours. Experiential investigation of voice as it relates to resonant, physical body. Working with primal qualities of voice and how it interfaces with breath, physical anatomy, and space around us. Physical approach to singing, with singing being defined in its broadest sense as all possible sounds emitted by human voice. May be repeated for credit without limitation. P/NP or letter grading.
3. Beginning West African Dance. (2) Studio, three hours. Beginning-level study of dances originating from Mandingo culture in sub-Saharan Africa. May be repeated for credit without limitation. P/NP or letter grading.
5. Beginning Martial Arts. (2) Studio, three hours. Beginning-level study of Tai Chi Chuan and other martial arts forms. May be repeated for credit without limitation. P/NP or letter grading.
6. Yoga. (2) Studio, three hours. Beginning-level study of yoga. May be repeated for credit without limitation. P/NP or letter grading.
7. Beginning Special Topics. (2) Studio, three hours. Beginning-level study of variable movement practices. May be repeated for credit without limitation. P/NP or letter grading.

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15. Beginning Modern/Postmodern Dance. (2) Laboratory, four hours. Study of modern and/or postmodern movement practices. May be repeated for credit without limitation. P/NP or letter grading.

16. Beginning Improvisation in Dance. (2) Laboratory, four hours. Introduction to creative exploration in movement through improvisational and compositional exercises that access and develop imagination, find relationship between imagination and dance making, and enrich movement vocabulary. May be repeated for credit without limitation. P/NP or letter grading.

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

44. World Dance Histories. (5) Lecture, three hours; discussion, two hours. Comparative framework for looking at dance practices through time as they have developed around world, questioning relation of dance to culture and providing students with tools for investigating histories of any given dance form. P/NP or letter grading.

45. Introduction to Dance Studies. (4) Lecture, three hours. Enforced requisite: course 44. Introduction to discipline of dance studies, with focus on study of corporeality as key contemporary perspective on body. Multidisciplinary approach to dancing bodies conceptualized as social constructs, including attention to gender, race, class, and national identity. P/NP or letter grading.

52. Intermediate Special Topics. (2) Studio, three hours. Intermediate-level study of variable movement practices. May be repeated for credit without limitation. P/NP or letter grading.

56. Intermediate West African Dance. (2) Studio, three hours. Intermediate-level study of dance originating from Mandingo culture in sub-Saharan Africa. May be repeated for credit without limitation. P/NP or letter grading.


60. Intermediate Martial Arts. (2) Studio, three hours. Intermediate-level study of Tai Chi Chuan and other martial arts forms. May be repeated for credit without limitation. P/NP or letter grading.

63. Intermediate Ballet. (2) Studio, three hours. Intermediate-level study of ballet as movement practice. May be repeated for credit without limitation. P/NP or letter grading.

65. Intermediate Modern/Postmodern Dance. (2) Studio, four hours. Intermediate-level work in modern and/or postmodern movement practices. Technical training with emphasis on increasing skill. May be repeated for credit without limitation. P/NP or letter grading.

67A. Theories and Methods in Dance Composition I: Languages. (4) Seminar, two hours; studio, two hours; outside study, eight hours. Enforced requisite: course 16. Examination of diverse movement sources from which dances are made. How do different choreographers envision vocabularies of movement they use? How do they select or create movement out of which they create dance? Answers to these questions in relation to broad range of artistic approaches, acknowledging that dance-making occurs distinctively in different cultural contexts and different historical moments. Readings about and viewing of videos of selected artists’ work and their different strategies for their processes of creating dances for comparison. Use of these analyses to assist in creative process for making new dances. P/NP or letter grading.

70. Production Practicum. (2) Lecture, 90 minutes; activity, three and one half hours. Introduction to practical perspectives on producing events in world arts and cultures, including but not limited to theatrical support and planning and executing lecture series, introduction to professional stage production principles and hands-on experience in technical theater. May be repeated once for credit. P/NP grading.

98. Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to lower-division lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

99. Student Research Program. (1 to 2) Tutorial (supervised research or other scholarly work), three hours per week per unit. Entry-level research for lower-division students under faculty mentor. Students must be in good academic standing and enrolled in minimum of 12 units (excluding this course). Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP grading.

Upper-Division Courses

101. Theories of Dance. (5) Lecture, four hours; discussion, two hours. Enforced requisite: course 45. Ideas of dance, choreography, and movement have achieved broad resonance in contemporary performance, art, politics, culture, and studies of social behavior. Examination of concepts and approaches to dance studies and deployments of its vocabulary within field and beyond, concentrated in four principal approaches: history, ethnography, choreographic analysis, and critical theory. Use of key ideas in dance to investigate allied areas of performance, embodiment, social constructions of identity and difference, and relationship to gendered and racialized power. Design of dance performances to illustrate link between theory and practice. How dance creates alternative modes of historical and knowledge in range of cultural contexts. P/NP or letter grading.

C106A. Advanced West African Dance. (2) Studio, three hours. Advanced-level study of dances originating from Mandingo culture in sub-Saharan Africa. May be repeated for credit without limitation. Concurrently scheduled with course C406A. P/NP or letter grading.

C109A. Advanced Hip-Hop Dance. (2) Studio, three hours. Advanced-level study of hip-hop movement practices. May be repeated for credit without limitation. Concurrently scheduled with course C409A. P/NP or letter grading.

C113A. Advanced Ballet. (2) Studio, three hours. Advanced-level study of ballet as movement practice. May be repeated for credit without limitation. Concurrently scheduled with course C413A. P/NP or letter grading.

114. Performance Practicum. (1 to 4) Studio, three to 12 hours. Rehearsal in selected choreographic/theatrical work. May be repeated for credit without limitation. P/NP grading.

C112A. Advanced Special Topics. (2) Studio, three hours. Advanced-level study of variable movement practices. May be repeated for credit without limitation. Concurrently scheduled with course C412A. P/NP or letter grading.

C115. Advanced Modern/Postmodern Dance. (2) Studio, six hours. Advanced-level work in modern and/or postmodern movement practices. Technical training, with emphasis on increased understanding of movement principles and ability to apply these to performance. May be repeated for credit without limitation. Concurrently scheduled with course C415. P/NP or letter grading.


117A. Theories and Methods in Dance Composition III: Locations. (4) Seminar, two hours; studio, two hours; outside study, eight hours. Enforced requisites: courses 16, 67A, 67B. Examination of how location affects and informs choreography, and how various artists have worked with place in construction of new dances. Use of these analyses to assist in creative process for making new dances. P/NP or letter grading.

117B. Theories and Methods in Dance Composition IV: Impacts. (4) Seminar, two hours; studio, two hours; outside study, eight hours. Enforced requisites: courses 16, 67A, 67B. Examination of relation of dance to its audience. Synthesis of analyses undertaken in previous courses with emphasis on how different choreographers move their viewers. How do dances appeal to or address their audiences? How do dance vocabulary, sequencing, and location combine to create particular effects? Answers to these questions in relation to broad range of artistic approaches, acknowledging that dance-making occurs distinctively in different cultural contexts and different historical moments. Different approaches to dance result in highly distinctive kinds of responses from audiences. Focus on creation of three in-depth studies, each of which endeavors to construct distinctive kind of response from viewers. P/NP or letter grading.

117C. Advanced Topics in Choreography. (4) Lecture, four hours; studio, two hours; outside study, six hours. Enforced requisites: courses 16, 67A, 67B. Directed exploration in company and field with students developing theme-based choreographic works that are informed by theoretical engagement with selected topics through lectures, readings, and discussion. Thematic topics include contemporary issues and concerns such as image, essence, and abstraction; home, history, and memory; interculturalism; constructing identity. May be repeated for credit without limitation.

C122. Music and Dance Collaborations. (4) Studio, four hours. Requisites: courses 67A, 67B. Designed for dance students who have had prior coursework/experience in choreography and for music students who have had prior coursework/experience in music composition. Opportunity for directors, choreographers, and composers to work together creating and developing material in their respective disciplines. Examination of different forms and ways of approaching creative process of making dance and music, presenting material on weekly basis, and developing skills for discussion, critique, and review. Concurrently scheduled with course C224. P/NP or letter grading.

C145. Selected Topics in Dance Studies. (4) Lecture, four hours; outside study, eight hours. Designed for seniors/juniors. Selected topics in study of dance and corporeality. May be repeated for credit with topic change. Concurrently scheduled with course C245. P/NP or letter grading.
C152. History and Theory of Modern/Postmodern Dance. (4) Lecture, four hours; studio, two hours; outside study, six hours. Introduction to key figures in creation of modern dance with special attention to their theories and philosophies and tracing of radical shift to postmodern dance that occurred in mid-20th century. Contemporary developments, both historical and theoretical. Student projects involve choreography and writing. Concurrently scheduled with course C252, P/N or letter grading.

M157. Rechoreographing Disability. (Same as Disability Studies M157.) Seminar, four hours. Through study of range of performance by, featuring, or about people who identify as disabled, reading, writing, and discussion of range of writing about experiences of disability and process of making work about disability by key artists and thinkers. Introduction to concept of choreography as political/ideological idea broadly defined as scored movement and organization and behavior of bodies, as well as choreography as poetic form for expression of ideas, creative tool, or product. Viewing and discussion of work, and engaging ideas through movement and dance-making. P/N or letter grading.

158. Choreographing Gender. (4) Lecture, three hours; laboratory, two hours. Designed for juniors/seniors. Analysis of aesthetic codes and theatrical choreographic approaches as they intersect with construction of gender in U.S., with close attention to race, class, and sexuality. P/N or letter grading.

159. Movement Theories. (2) Lecture, two hours; laboratory, two hours. Study of motor coordination patterns with an emphasis on developing movement featurable for dance performance. Personalized attention and use of video to increase students’ stylistic diversity. Development of movement efficiency for prevention of dance injuries. May be repeated twice. P/N or letter grading.

160. Topics in Body Mechanics. (4) Lecture, three hours; studio, one hour. Designed for juniors/seniors. Variable topics course with discussion of injury prevention, instructional techniques, and study of biological and physical principles of human movement as related to dance. May be repeated for credit without limitation. P/N or letter grading.

165. Foundations of Dance Education. (4) Lecture, two hours; laboratory, three hours. Introduction to movement concepts, skills, and teaching principles for modern/postmodern dance instruction. Supervised teaching with opportunities for students to develop and practice instructional techniques in the classroom. P/N or letter grading.

166. Dance as Culture in Education. (4) Lecture, two hours; laboratory, two hours. Theoretical and practical aspects of teaching dance to students with varying educational needs. May be repeated for credit without limitation. P/N or letter grading.

167. Creative Lab. (4) Lecture, three hours; laboratory, one hour. Introduction to movement concepts, skills, and principles for teaching children’s dance; emphasis on dance as creative medium of expression. P/N or letter grading.

CM168. Beyond Aca: Making Art in Real World. (4) (Same as World Arts and Cultures CM168.) Lecture, four hours; outside study, eight hours. Designed for juniors/seniors. Focus on understanding bureaucratic structures and regional histories conditioning creation of art in real world, including such practical issues as publicity and grant-writing. Concurrently scheduled with course CM168. P/N or letter grading.

169. Repertory Tour Ensemble. (2 or 4) Lecture, two hours; studio, four to six hours. Designed for World Arts and Cultures majors. Creation and presentation of performances in community with special emphasis on problem-based projects and opportunities for majors with varying repertoires. May be repeated once. P/N or letter grading.

170. Advanced Production. (1 to 2) Laboratory, three hours; outside study, up to three hours. Prerequisite: course 70. Further development and application of practical perspectives on producing events in department, including but not limited to theatrical support and planning and executing lecture series. Provides students with advanced practical knowledge necessary, and an opportunity to study nature of art component in world arts and cultures/dance studies. May be repeated for credit without limitation. P/N grading.

C171. Dance Production: Variable Topics. (4) Lecture, four hours; laboratory, two hours. Foundation experience in range of dance production practices, including but not limited to lighting design, set design, costume design, and stage management. Practical training in area covered, combined with theoretical inquiry into practice and opportunities for students to reflect on their own work and that of others. Completion of production project required. May be repeated for maximum of 12 units. Concurrently scheduled with course C271. P/N or letter grading.

174A. Projects in Dance. (2) Laboratory, four hours. Individualized major projects in choreography, performance, cultural studies, production, and media. May be repeated for credit without limitation. P/N or letter grading.

174B. Projects in Dance. (4) Laboratory, six hours. Individualized major projects in choreography, performance, cultural studies, production, and media. May be repeated for credit without limitation. P/N or letter grading.

182. Dance and Visual Media. (4) Lecture, four hours. Examination of aesthetic differences between dance, film, and video and exploration of new aesthetic when they are combined. Analysis of record and documentary dance film, choreo-cinema, and impact of MTV, as well as integration of media with performance. Letter grade only.

C180. Dance for Camera. (4) Lecture, two hours; laboratory, two hours. Introduction to making dance for camera. Students acquire and apply basic video production and editing skills and film production of movement-based projects. With rudimentary tools—film, frame—set up shots, storyboard, design shot lists, and set-up lists, log and capture, edit, and export footage—students create their own dance for camera video projects. Students gain deeper understanding of conceptualization, practice, theory, history, and current state of dance for camera. Concurrently scheduled with course C280. Letter grading.

C184. Production Seminar. (4, Seminar, four hours. Theory and practice of production administration, including hands-on case studies for producing public events in arts and academia. Topics include, but are not limited to, history and theories of producing, mission statements, budgeting, marketing, public relations, fund-raising, legalities, and archiving. Concurrently scheduled with course C184. S/U or letter grading.

C245. Selected Topics in Dance Studies. (4) Lecture, four hours; outside study, eight hours. Designed for graduate students. Selected topics in study of dance and corporeality. Consult Schedule of Classes for topics to be offered in specific term. May be repeated for credit with topic change. Concurrently scheduled with course C145. S/U or letter grading.

C252. History and Theory of Modern/Postmodern Dance. (2) Lecture, four hours; studio, two hours; outside study, six hours. Introduction to key figures in creation of modern dance, with special attention to their theories and philosophies and tracing of radical shift to postmodern dance that occurred in mid-20th century. Contemporary developments, both historical and theoretical. Student projects involve choreography and writing. Concurrently scheduled with course C252. P/N or letter grading.

CM268. Beyond Academia: Making Art in Real World. (4) (Same as World Arts and Cultures CM268.) Lecture, four hours; outside study, eight hours. Designed for graduate students. Focus on understanding bureaucratic structures and regional histories conditioning creation of art in real world, including such practical issues as publicity and grant-writing. Concurrently scheduled with course CM168. S/U or letter grading.

C271. Dance Production: Variable Topics. (4) Lecture, four hours; laboratory, two hours. Foundation experience in range of dance production practices, including but not limited to lighting design, set design, costume design, and stage management. Practical training in area covered, combined with theoretical inquiry into practice and opportunities for students to reflect on their own work and that of others. Completion of production project required. May be repeated for maximum of 12 units. Concurrently scheduled with course C271. S/U or letter grading.

C280. Dance for Camera. (4) Lecture, two hours; laboratory, two hours. Advanced-level study of making dance for camera. Students acquire and apply basic video production skills for creation of movement-based projects. With rudimentary tools—film, frame, set up shots, storyboard, design shot lists, and set-up lists, log and capture, edit, and export footage—students create their own dance for camera video projects. Students gain deeper understanding of conceptualization, practice, theory, history, and current state of dance for camera. Concurrently scheduled with course C280. Letter grading.

C406A. Advanced West African Dance. (2) Studio, two hours. Advanced-level study of dance originating from Mandingo culture in sub-Saharan Africa. May be repeated for credit without limitation. May be repeated for credit without limitation. Concurrently scheduled with course C406A. S/U or letter grading.

C409A. Advanced Hip-Hop Dance. (2) Studio, three hours. Advanced-level study of hip-hop movement practices. May be repeated for credit without limitation. Concurrently scheduled with course C409A. S/U or letter grading.

C412A. Advanced Special Topics. (2) Studio, three hours. Advanced-level study of variable movement practices. May be repeated for credit without limitation. Concurrently scheduled with course C412A. S/U or letter grading.

C412A. Advanced Special Topics. (2) Studio, three hours. Advanced-level study of variable movement practices. May be repeated for credit without limitation. Concurrently scheduled with course C412A. S/U or letter grading.
World Arts and Cultures

Lower-Division Courses

1. Introduction to World Arts and Cultures. (5) Lecture, three hours; discussion, one hour. Survey of concepts and theories involved in intercultural, interdisciplinary study of art, aesthetics, and performance. Examination of interaction among various modes of creative expression, role of style in daily life, performative representation of cultural identity and difference, and interaction of diverse artistic traditions. Letter grading.

2. Lower-Division Seminar. (5) Seminar, four hours; outside study, 11 hours. Variable topics seminar with focus on scholarly and practice-based research in arts. In-depth investigations of topics ranging from body in cultural context, interdisciplinary art-making, visual cultures, oral genres, material culture, study of culture and performance, including individual and cultural identity through arts, creation of dance/theatrical performance, and/or postmodern movement practices. Technical aspects of video production and usage of tools. Training in technical aspects of video production and usage of video tools. P/NP or letter grading.

C413A. Advanced Ballet. (2) Studio, three hours. Advanced-level study of ballet as movement practice. May be repeated for credit without limitation. Concurrently scheduled with course C113A. S/U or letter grading.

C415. Advanced Modern/Postmodern Dance. (2) Studio, six hours. Advanced-level work in modern and/or postmodern movement practices. Technical training, with emphasis on increased understanding of movement principles and ability to apply these to performance. May be repeated for credit without limitation. Concurrently scheduled with course C113S. S/U or letter grading.

441. Dance Production Practicum. (2 to 4) Laboratory, four to eight hours (one or two hours may be individual consultation). Skills and understanding of production components in roles of stage manager, production assistants, and producer. May be repeated for maximum of 8 units. S/U grading.

452. Directed Field Study in Dance Education. (2 to 8) Seminar, one hour; field study, two hours minimum. Directed field study to provide teaching experience in community school or other approved site. No more than 4 units may be applied toward MA degree requirements. S/U grading.

490. Projects in Choreography and Performance. (2 to 8) Tutorial, one three-hour rehearsal per unit per week minimum. Creation, casting, and rehearsing of culminating events. Open to professionals. Achievement in choreography or performance, in first term. In second term, direction of on-stage rehearsals for culminating concert by each student leading to fully staged production. May be repeated for maximum of 16 units. S/U or letter grading.

498. Professional Internship in Dance. (4, 8, or 12) Seminar, to be arranged. Full- or part-time supervised fieldwork, limited to MFA students. Internship in dance, theater, film, or television organization. Participation in creative, administrative, or technical work of professionals in their specialties. S/U or letter grading.

C104A. Art as Social Action. (5) Lecture, four hours; discussion, one hour. Designed for juniors/seniors. Discussion of what constitutes artist's social responsibility and in what ways art is qualified to engage in direct political action. Study of tension between powers of this world and powers of art. P/NP or letter grading.

C100B. Art as Moral Action. (5) Lecture, four hours; discussion, one hour. Designed for juniors/seniors. One's ability to distinguish between right and wrong morally is thought to be developed and refined through artistic practice. Study of cultural strategies of moral engagement, persuasion, and inquiry in personal and public life, including factors of conscience and civil disobedience. P/NP or letter grading.

101. Theories of Performance. (5) Lecture, four hours; studio, two hours. Performance commonly refers to activities on prosenium stage. Explosion of that narrow notion of performance by delving into history of performance, specifically dance, as a way of understanding how people make sense of other people's stories, in order to research and influence their bodies and minds. Introduction to theoretical and practical understanding of performance. P/NP or letter grading.

99. Student Research Program. (1 to 2) Tutorial (supervised research or other scholarly work), three hours per week per unit. Entry-level research for lower-division students under guidance of faculty. Students must be in good academic standing and enrolled in minimum of 12 units (excluding this course). Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP grading.

Upper-Division Courses

100A. Art as Social Action. (5) Lecture, four hours; discussion, one hour. Designed for seniors/juniors. Discussion of what constitutes artist's social responsibility and in what ways art is qualified to engage in direct political action. Study of tension between powers of this world and powers of art. P/NP or letter grading. 

100B. Art as Moral Action. (5) Lecture, four hours; discussion, one hour. Designed for seniors/juniors. One's ability to distinguish between right and wrong morally is thought to be developed and refined through artistic practice. Study of cultural strategies of moral engagement, persuasion, and inquiry in personal and public life, including factors of conscience and civil disobedience. P/NP or letter grading.

99. Student Research Program. (1 to 2) Tutorial (supervised research or other scholarly work), three hours per week per unit. Entry-level research for lower-division students under guidance of faculty. Students must be in good academic standing and enrolled in minimum of 12 units (excluding this course). Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP grading.

101. Theories of Performance. (5) Lecture, four hours; studio, two hours. Performance commonly refers to activities on prosenium stage. Explosion of that narrow notion of performance by delving into history of performance, specifically dance, as a way of understanding how people make sense of other people's stories, in order to research and influence their bodies and minds. Introduction to theoretical and practical understanding of performance. P/NP or letter grading.

100A. Art as Social Action. (5) Lecture, four hours; discussion, one hour. Designed for seniors/juniors. Discussion of what constitutes artist's social responsibility and in what ways art is qualified to engage in direct political action. Study of tension between powers of this world and powers of art. P/NP or letter grading. 

100B. Art as Moral Action. (5) Lecture, four hours; discussion, one hour. Designed for seniors/juniors. One's ability to distinguish between right and wrong morally is thought to be developed and refined through artistic practice. Study of cultural strategies of moral engagement, persuasion, and inquiry in personal and public life, including factors of conscience and civil disobedience. P/NP or letter grading.

101. Theories of Performance. (5) Lecture, four hours; studio, two hours. Performance commonly refers to activities on prosenium stage. Explosion of that narrow notion of performance by delving into history of performance, specifically dance, as a way of understanding how people make sense of other people's stories, in order to research and influence their bodies and minds. Introduction to theoretical and practical understanding of performance. P/NP or letter grading.

C140. Myths and Transformation. (4) (Same as Gender Studies CM143.) Lecture. Four hours; outside study, eight hours. Designed for ju- niors/seniors. Examination of role of healers, histori- cal and contemporary contexts. Use of therapeutic techniques, and issues in conducting field-based re- search. Exploration of psychological functions served by rites of passage and healing rituals and of role of arts in healing troubled communities. Concurrently scheduled with course CM240. P/NP or letter grading.

C141. Carnival and Festivity. (4) Lecture. Three hours; fieldwork, one hour. Study of traditional calen- drical, religious, and local festivals and related events in their cultural and historical contexts, with emphasis on African American festivals occuring in pre- and Old World antecedents. Topics include carnival and carnavi- lesque and politics of celebration. Concurrently scheduled with course C241. P/NP or letter grading.


144. Make Art/Stop AIDS. (5) Lecture, four hours; studio, two hours. Can arts save lives? That is central question posed here in relation to global AIDS epi- demic. Working in close connection with public health and epidemiology, exploration of arts as powerfully ef- fective tool in AIDS prevention and treatment efforts. Review of literature of AIDS cultural analysis that emerged in late 1980s in U.S. and application of that literature to international hot spots such as India, China, South Africa, and matrix. Narrative theory-in- action projects. P/NP or letter grading.

C145. Curating Arts. (4) Lecture, three hours. Exploration of politics and politics of exhibiting non- Western arts and cultures. Series of provocative case studies focused on special issues and themes of curatorial- level social work, divination determines causes of difficulty, spirit determination of appropriate course work and community approval. P/NP or letter grading.

C150. Critical Ethnographies. (5) Lecture, three hours. Enforced requisite: course 20 or 33. Survey of methods and rhetorical strategies to explicitly loco- late ethnographic method as key component of cross-cultural understanding. Examination of catego- rical notions of insider and outsider while also devel- oping various perspectives on events; identity of iden- tity formation. Concurrently scheduled with course C250. P/NP or letter grading.

C151. Ethnography of Religions. (4) Lecture, three hours. Religions are cultural systems helping people to cope with misfortune, deal with death, and find ful- fillment in life. Case studies reveal commonalities across cultures as cosmologies define moral being in the world, divination determines causes of difficulty, spirit mediumship, embodiement, and sacred arts render deities tangible. Nonjudgmental compara-
C175. Visual Cultures. (4) Lecture, four hours. How are ways of seeing constructed through culture, gender, religion, class, and nation? Theories and case studies from around the world of the performance of social processes through which gaze is determined and image economies negotiated. Topics include scopic regimes, aesthetics of streamlined design, and visuality and activism. Concurrently scheduled with course C252. P/NP or letter grading.

C158. Theorizing Arts Activism. (4) Seminar, three hours. Historianizing and theorizing of arts activism to provide context for analysis, creation, and critique of new modes of protest. Readings include theoretical texts and current performances. Consideration of one particular activist project, with focus on ongoing activism sponsored by UCLA Art and Global Health Center. Arts activist projects organized by seminar members supported and encouraged. Concurrently scheduled with course C258. P/NP or letter grading.

C159. Art and Global Health. (4) Seminar, three hours. Exploration of interface of arts and health-based methodologies in pursuit of improved health outcomes, using examples from international projects created and supported by UCLA Art and Global Health Center. Readings by artists and health scholars and articles from public health and medical literature. Seminar members propose their own arts-based health promotion interventions. Concurrently scheduled with course C273. P/NP or letter grading.

160. Performing Sexual Health: UCLA Sex Squad. (4) Seminar, three hours. Exploration of activist sexual health education theater as it has been used both locally and globally. Examination specifically of how humor, personal narrative, and nonjudgmental pro-sex approaches have been utilized to open empowering and educational dialogues about sexual health by and for diverse range of communities. Intensive training on sex, sexuality, HIV/AIDS, and powerful history of artists’ interventions to open urgent dialogues on these taboo topics. May be repeated for maximum of 12 units. P/NP or letter grading.

C164. Public Writing in Arts. (4) Lecture, four hours; outside study, eight hours. Survey of journalistic approaches to writing about arts, with eye toward shaping critique of public writing practices and putting that critique into practice. Exploration of new modes of and (venues for) writing that rebalance power differential between art makers and commentators. Concurrently scheduled with course C264. P/NP or letter grading.

CM168. Beyond Academia: Making Art in Real World. (4) Formerly numbered C168. (Same as Dance CM168.) Lecture, four hours; outside study, eight hours. Designed for juniors/seniors. Focus on understanding bureaucratic structures and regional histories conditioning creation of art in real world, including such practical issues as publicity and grant writing. Concurrently scheduled with course CM268. P/NP or letter grading.

C173. Sound Resources for Performance. (4) Lecture, three hours; studio, one hour; outside study, eight hours. Designed for juniors/seniors. Exploration of music and sound design in theater, film, and television. Investigation of musical possibilities via record store, Internet, and music library; environmental sounds and patterns; body (clapping, stepping, and singing); and hardware store (found sound). Participants collaborate with fellow students in creative efforts and in presentation of research results. Concurrently scheduled with course C273. P/NP or letter grading.

174A. Projects in World Arts and Cultures. (2) Laboratory, three hours; choreography, performance, cultural studies, production, and media. May be repeated for credit. P/NP or letter grading.

174B. Projects in World Arts and Cultures. (4) Laboratory, five hours; Individualized major projects in choreography, performance, cultural studies, production, and media. May be repeated for credit. P/NP or letter grading.

177SL. Taking Actions: Arts Practice and Community Service. (4) Seminar, four hours; outside study, eight hours. Enforced requisite: course 103. Designed for juniors/seniors. Application of training in world arts and cultures through service projects designed by students in collaboration with community organizations and institutions. Reflection on impact of service on communities and theories. May be repeated once for credit. P/NP or letter grading.

178. Advanced Private Instruction in World Arts and Cultures. (2) Lecture, three to 12 hours. Enforced requisite for juniors/seniors. Private or semiprivate instruction in one world arts practice with distinguished community-based faculty arranged by students and approved by instructor. May be repeated for maximum of 24 units. P/NP grading.

180. Variable Topics in Video Production/Practice. (4) Lecture, two hours; laboratory, two hours. Enforced requisite: course 80. Training in low-budget and independent video and documentary practice as research tool. Visual ethnography combined with experimental film, instruction to history, ethics, and aesthetics of documenting subjects such as culture, performance, and dance among range of forms for bodily expression and experience. Film and documentary theory, ethnography, and phenomenology used to create innovative forms of visual documentation. Skills include cinematography, sound recording, interviews, and digital editing. May be repeated once for credit. Concurrently scheduled with course C280. Letter grading.

181. Ethnographic Film. (4) Lecture, four hours. Survey of ethnographic film and video, with focus on studies of expressive culture. Emphasis on critical and comparative approaches to visual study of culture, community, and arts. P/NP or letter grading.


185. Junior-Year Proposal. (1) Lecture, 90 minutes; outside study, 90 minutes. Limited to World Arts and Cultures majors. Planning and execution of proposal (either senior focus or senior honors project) for senior-year study, with attention to exploring resources of department and University as whole. May be repeated once for credit. P/NP grading.

186A-186B. Senior Honors Projects in World Arts and Cultures. (5-9) Lecture, four hours; outside study, 90 minutes. Limited to senior World Arts and Cultures majors. Application of concepts and content from interdisciplinary major to individual projects. Methodologies may include critical, comparative, ethnographic, and performative approaches. Lecture/seminar format with World Arts and Cultures faculty during first term; faculty-directed presentations of individual projects during second term. S/U or P. Enforced requisite: course 186A. Limited to senior/senior UWAC Facilitators. Individual study in regularly scheduled meetings with faculty mentor to discuss selected USIE seminar topic, conduct preparatory research, and begin preparation of syllabus. Individual contract with faculty mentor required. May not be repeated. Letter grading.

188B. Individual Studies for USIE Facilitators. (1) Tutorial, to be arranged. Enforced requisite: course 188B or a forced corequisite of 101E. Limited to junior/senior UWAC facilitators. Individual study in regularly scheduled meetings with faculty mentor to finalize course syllabus. Individual contract with faculty mentor required. May not be repeated. Letter grading.

188SC. Individual Studies for USIE Facilitators. (2) Tutorial, to be arranged. Enforced requisite: course 188SC. Limited to junior/senior facilitator. Individual study in regularly scheduled meetings with faculty mentor while facilitating USIE 88S course. Individual contract with faculty mentor required. May not be repeated. Letter grading.

189. Advanced Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to undergraduate lecture course. Exploration of topics in greater depth through supplemental readings, papers, and projects. Instructor to provide periodic reports on student progress. May be repeated for maximum of 8 units. Individual contract with supervising faculty member required. P/NP or letter grading.

195. Community or Corporate Internships in World Arts and Cultures. (2 to 4) Seminar, three hours. Internship in supervised setting in community agency or business. Students meet on regular basis with instructor and provide periodic reports on experience. May be repeated for maximum of 10 units. Individual contract required. P/NP or letter grading.

199. Directed Research in World Arts and Cultures. (1-10) Tutorial, two hours. Preparation: 3.0 grade-point average in major. Limited to juniors/seniors. Supervised individual research or investigation under guidance of faculty mentor. Cumulating paper or project required. May be repeated for maximum of 10 units. Individual contract required. P/NP or letter grading.

Graduate Courses

200. Theories of Culture. (4) Seminar, three hours; outside study, nine hours. Introduction to history of culture concept in anthropology, literature, and social sciences. Analysis of contemporary debates concerning ownership and use of word “culture” and critical elucidation of study of culture. S/U or letter grading.

201. Theories of Performance. (4) Seminar, three hours; outside study, nine hours. Close reading and analysis of classic and contemporary studies of performance and related aesthetic practices. Familiarization with ways in which “performance” is defined and deployed by scholars working in disciplines of anthropology, dance, folklore, linguistics, literature, musicology, performance studies, philosophy, sociology, and theater. S/U or letter grading.

202. Research Methodologies. (4) Seminar, three hours; outside study, nine hours. Hands-on course designed to help students develop understanding of many developed qualitative research methods and documented research and creation of research problems, development of designs, actual data collection, and analysis procedures to address those problems. S/U or letter grading.

203. Proseminar: Dance Studies. (4) Seminar, three hours; outside study, nine hours. Survey of theoretical issues and problems in study of dance and body movement in cultural, social, and historical context. S/ U or letter grading.

204. Theories of Corporate. (4) Seminar, three hours; outside study, nine hours. Close reading and analysis of interdisciplinary perspectives on human body. Topics include representations of body, body symbolism, embodiment of identity (including gender, race, ethnicity, age, and other somatic modes of performance). S/U or letter grading.

207. Ethnography of Performance. (4) Seminar, three hours; outside study, nine hours. Survey of methods and methodological issues in ethnographic
210. Ethnography of and in Colonialism. (4) Seminar, three hours. Begins with 1560 debates over Indian humanity and ranging to contemporary scholarly about and by indigenous peoples, focus on intersections of writing, colonialism, violence, and historiography. Preparation of relationship between 16th-century reasoning about race and postmillennial, Western, and academic practices of writing history. Development of critical stance on power and political perceptions on anthropology and historical studies of indigenous regions. Regions include southwest Columbia, Ori- noco Delta in Venezuela, Valley of Mexico, and several examples throughout U.S. southwest, plains, and northeast. S/U or letter grading.

CM213B. Legislative Theater for Race and Gender Justice. (5) Same as African American Studies CM213B. Lecture, three hours; discussion, one hour (when scheduled). Exploration and application of range of interactive methods and arts-based strategies with participants from UCLA and broader Los Angeles community to research and influence public policy and legislative change. Students and campus partners create and perform legislative theater addressing issues of race, gender, and criminal justice system. Oral texts, collaborative work, creative methods are used to engage perspectives on justice. Analysis of diverse and growing body of work on systems of justice through research, writing, workshops, and performances. Critiques of oral traditions and performances developed in response to visiting scholars and community partners. Concurrently scheduled with course CM113B. S/U or letter grading.

215. Analyzing Narrative and Oral Performance. (5) Lecture, four hours. Designed for graduate students. Exploration of ways of documenting individual narrators and interpreting their styles and repertoires; how narrators conceptualize and perform narrative; course, impact of audience and situated event on both narrating and story, how experiences and values are communicated through narrating, modes of representing oral narratives, and politics of narrative and oral performance. S/U or letter grading.

220. Seminar: Culture and Performance. (4) Seminar, three hours; outside study, nine hours. Designed for graduate students. Introduction to and analysis of interdisciplinary study of expressive culture, arts, and performance in social and historical context. May be repeated for credit. Course may be used as a prerequisite. S/U or letter grading.

C229. Food Customs and Symbolism. (4) Lecture, three hours. Designed for graduate students. Introduction to foodways, with particular attention to customs and symbolism in America. Topics include sensory rea, child rearing practices, foodsharing, food and identity, food and its emotional significance, averse and taboos, advertising, changing food habits, and American diet. Concurrently scheduled with course CM130. S/U or letter grading.

CM230. Space and Place. (4) Same as Architecture and Urban Design CM230. Lecture, three hours. Survey of array of spaces and places from cross-cultural or comparative perspective and with performance emphasis, with focus on mutual interaction of human beings and their created environments. Emphasis on common, ordinary, anonymous, or vernacular not built and built environments, which are built and used as small-scale, traditional, and transitional communities around the world. Concurrently scheduled with course CM130. S/U or letter grading.

C238. American Indian Arts in Performance. (4) Seminar, four hours. Lecture and laboratory. Introduction to and sensitivity to dynamic contexts within Native American worlds of performance and material culture and development of ability to focus on them and learn to conduct research of wide range of American Indian art and craft traditions within fullest possible range of such contexts, with performance given its most generous definition. Study of spectrum of genres, including architecture, social and dance re- galia, masks, and utilitarian material culture, to investigate how such items play their part and come alive through movement, sound, spoken word, silence, and even dreams and visions. Concurrently scheduled with course CM129. S/U or letter grading.


CM240. Healing, Ritual, and Transformation. (4) Lecture, two hours; fieldwork, one hour; outside study, eight hours. Designed for graduate students. Examination of role of healers, historically and currently, and anthropology of colonialism. Concurrently scheduled with course C141. S/U or letter grading.


C246. Politics of Performance. (4) Seminar, four hours; outside study, eight hours. Designed for graduate students. Opportunity to reflect on artists and intellec tuals as cultural workers operating in domains of ideology, aesthetics, and theory. Analysis of such key words as ideology, aesthetics, theory, art, politics, inter pretation, intention, and context. Concurrently scheduled with course C146. S/U or letter grading.

C250. Critical Ethnographies. (5) Lecture, three hours. Required course: course 20 or 33. Survey of major tropes and rhetorical strategies to explicitly locate ethnographic inquiry within cultural and historical context. Examination of category of notions of insider- outsider and while also de veloping various perspectives on performed acts of identity formation. Concurrently scheduled with course C150. S/U or letter grading.

C251. Ethnography of Religions. (4) Lecture, three hours. Religions are cultural systems helping people to cope with misfortune, deal with death, and find fulfillment in life. Case studies reveal commonalities across cultures as cosmologies define moral being in world, divination determines causes of difficulty, spirit mediums embody divinity, and sacred arts render deities tangible. Nonjudgmental comparative investigation stressing conversation. Concurrently scheduled with course C151. S/U or letter grading.

C252. Visual Cultures. (4) Lecture, three hours. How are ways of seeing constructed through culture, gender, religion, class, and nation? Theories and case studies from around world permit understanding of social processes by which visual image is formed and image economies negotiated. Topics include scopic regimes, aesthetics of streamlined design, and visuality and liberation. Concurrently scheduled with course CM152. S/U or letter grading.

C258. Theorizing Arts Activism. (4) Seminar, three hours. Historiographizing and theorizing of arts activism to provide context for concerted analysis, creation, and protest. Readings include theoretical texts and current performance histories. Conception of one particular activist project, with focus on ongoing activism sponsored by UCLA Art and Global Health Center. Arts act ivist projects organized by seminar members supported and encouraged. Concurrently scheduled with course C159. S/U or letter grading.

C259. Art and Global Health. (4) Seminar, three hours. Exploration of interface of arts- and health-based methodologies in pursuit of improved health outcomes, using examples from international projects coordinated with UCLA’s Art and Global Health Center. Readings include texts by artists and arts scholars and articles from public health and medical literature. Seminar members propose their own arts- based health promotion interventions. Concurrently scheduled with course C159. S/U or letter grading.

C264. Public Writing in Arts. (4) Lecture, four hours; outside study, eight hours. Survey of journalistic ap proaches to writing about arts, with eye toward shaping criticism of public writing practices and putting that critique into practice. Exploration of new modes of arts writing that re balance power differential between art makers and commentators. Concurrently scheduled with course C164. S/U or letter grading.

CM268. Beyond Academia: Making Art in Real World. (4) Formerly numbered C268. (Same as Department of Art). Lecture, four hours; outside study, eight hours. Designed for graduate students. Focus on understanding bureaucratic structures and regional histories conditioning creation of art in real world, in cluding practical perspectives on grant writing. Concurrently scheduled with course CM168. S/U or letter grading.

C273. Sound Resources for Performance. (4) Lecture, four hours; studio, one hour; outside study, eight hours. Designed for graduate students. Exploration of music, in search of interesting, new, and unusual. Investigation of musical possibilities via record store, Internet, and music library; environmental sounds; participatory musicals (singing, dancing, and singing); and hardware store (found sound). Participants collaborate with fellow students in creative efforts in presentations of research results. Concurrently scheduled with course CM172. S/U or letter grading.

C280. Variable Topics in Video Production/Prac tice. (4) Lecture, two hours; laboratory, two hours. En forced requisite: course 90. Training in low-budget and independent video and documentary practice as research tool. Visual ethnography combined with experi mental film. Introduction to history, ethics, and aesthetics of video documentation, and critical, performative, and dance among range of forms for bodily expression and experience. Film and documentary theory, ethnography, and phenomenology used to create innovative and experimental visual documenta tion. Skills include cinematography, sound recording, interviews, and digital editing. May be repeated once for credit. Concurrently scheduled with course C180. Letter grading.


375. Teaching Apprentice Practicum. (1 to 4) Seminar, to be arranged. Preparation: apprentice per sonnel employment as teaching assistant, associate,
or fellow. Teaching apprenticeship under active guidance and supervision of regular faculty member responsible for curriculum and instruction at UCLA. May be repeated for credit. S/U grading.

400. Directed Professional Activities. (2 to 8) Lecture, to be arranged. Directed projects in professional editing, bibliography, filmography, videography, conference and festival direction, and other professional activities. May not be applied toward MA degree requirements. May be repeated. S/U grading.

451. Teaching Assistant Seminar. (2) Seminar, one hour; laboratory, three hours. Required of all World Arts and Cultures Department teaching assistants. Lectures, discussion, readings, and practice teaching. May be repeated once for credit. S/U grading.

478. Advanced Private Instruction in World Arts and Cultures. (2 to 8) Studio, three to 12 hours; outside study, three to 12 hours. Private or semiprivate instruction with distinguished community-based artist to be arranged by students and approved by instructor. May be repeated for maximum of 24 units. S/U grading.

480. Seminar: Research Topics. (2 to 4) Seminar, three hours; outside study, three to nine hours. Forum in which faculty, students, and visitors make presentations and obtain feedback on research being planned, conducted, or recently completed. Students required to make minimum of one presentation each term they are enrolled for credit. May be repeated for maximum of 8 units. S/U grading.

495. Teaching Assistant Seminar. (2) Seminar, one hour; laboratory, three hours. Required of all World Arts and Cultures Department teaching assistants. Lectures, discussion, readings, and practice teaching. May be repeated once for credit. S/U grading.

496. Teacher Preparation in World Arts and Cultures. (2) Seminar, two hours. Directed work in preparation of course syllabi and discussion of topics relevant to developing teaching skills. Fundamental principles and methods with which to design course syllabi and gather resources for courses. Topics include development of teaching philosophy, evaluating/selecting course content, teaching methodologies, assessment/evaluation/practicing, and consideration of practical, administrative, and ethical issues. Students meet with instructor to review their specific needs as they progress in development and elaboration of course plans. Microteaching sessions provide context for applying concepts and principles discussed. S/U grading.

596A. Directed Individual Study or Research. (2 to 8) Tutorial, to be arranged. S/U or letter grading.

596R. Directed Study or Research in Hospital or Clinic. (2 to 8) Tutorial, to be arranged. S/U grading.

597. Preparation for Master’s Comprehensive Examination or PhD Qualifying Examination. (2 to 8) Tutorial, to be arranged. Preparation for MA or MFA comprehensive examination or PhD qualifying examination. S/U grading.


WRITING PROGRAMS
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Writing Programs
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Amber I. West, PhD
Laurel A. Westrup, PhD
Reed D. Wilson, PhD

Scope and Objectives
Writing Programs is committed to inclusive pedagogy and student success, serving undergraduates through a curriculum in composition and English as a second language (ESL), as well as through the Undergraduate Writing Center (UWC). Writing Programs serves as the chief resource for writing and English language instruction through entry-level writing, first-year composition, writing-in-the-disciplines, and professional writing courses. Its courses play a vital role in preparing undergraduates from diverse linguistic and academic-skills backgrounds to succeed as writers/communicators in their UCLA studies as well as in future professional contexts. Writing Programs’ courses facilitate discovery, understanding, analysis, inspiration, community-building, and global citizenship.

The undergraduate curriculum develops writing skills in linguistic, visual, and digital forms, and encourages students to see the classroom as a place to be challenged by new ideas, to investigate, problem-solve, reflect, imagine, think and rethink, and ultimately, to learn. Writing Program’s undergraduate teaching mission is extended by the UWC, which aids thousands of students annually from all disciplines and all divisions at UCLA to communicate effectively in their coursework.

A curriculum in writing pedagogy for graduate students is also offered. Graduate writing instructors from across campus benefit from an intensive writing pedagogy training as preparation for teaching freshman composition (satisfies Writing I requirement) and writing in the disciplines (satisfies Writing II requirement). Writing Programs also provides writing pedagogy training for teaching assistants (TAs) in the Samuels School of Engineering and general education freshman cluster program. Teaching assistants interested in expanding their professional teaching profile as writing specialists can pursue a graduate certificate in Writing Pedagogy and participate in the certificate’s annual teaching symposium.

In addition, Writing Programs serves international graduate students as writers and communicators through graduate-level academic writing courses that satisfy the UCLA ESL requirement, elective writing workshops courses, and oral communication courses for international students who plan to serve as TAs and need to satisfy the Test of Oral Proficiency (TOP) requirement. During the summer, required writing courses are offered for matriculated students as well as a suite of ESL courses for international student visitors.

Writing Programs works closely with the Office of Equity, Diversity, and Inclusion to help all students experience academic belonging, and bring together members of the UCLA and Los Angeles communities through service learning courses, summer bridge programs for high school students, the UCLA prison education program, and public events. Writing Programs educational initiatives promote the impact of writing, write large, around issues of self expression, public discourse, diversity, and experiential learning.

Undergraduate Study
Entry-Level Writing
Every student who does not satisfy the Entry-Level Writing requirement by presenting transfer credit or acceptable test scores is required to take, as early as possible during the first year in residence, English Composition 1, 1A, 1B, 2, or 2I as determined by performance on the Analytical Writing Placement Examination (AWPE). Students who have not otherwise satisfied the Entry-Level Writing requirement and who have not taken the AWPE before entering UCLA must take it in their first term. For more information regarding Entry-Level Writing, see Undergraduate Degree Requirements in the Undergraduate Study chapter.

English as a Second Language Requirement
All entering undergraduate students whose native language is not English and who have not otherwise satisfied the English as a Second Language (ESL) requirement may be required to take one or more En-
Graduate Study

English as a Second Language Requirement

All entering graduate students whose native language is not English and who have not otherwise satisfied the English as a Second Language (ESL) requirement may be required to take one or more ESL courses. Students are placed in the courses based on the UCLA English as a Second Language Placement Examination (ESLPE). Transfer students who are required to take the ESLPE include those who have not yet satisfied the Intersegmental General Education Transfer Curriculum (IGETC), and those held at the discretion of Undergraduate Admission. The ESLPE may be taken once only.

Graduate Study

English as a Second Language

Writing Programs offers a Graduate Certificate in Writing Pedagogy.

Lower-Division Courses

19. Fiat Lux Freshman Seminars. (1) Seminar, one hour. Discussion of and critical thinking about topics of current intellectual importance, taught by faculty members in their areas of expertise and illuminating many paths of discovery at UCLA. P/NP grading.

20. Conversation and Fluency. (4) Lecture, four hours. Emphasis on speaking fluently in English by examining rules of conversation, participating actively in class discussions, making group presentations, and completing out-of-class assignments designed to promote interaction with native speakers and familiarize international students with UCLA campus and local community. Offered in summer only. P/NP or letter grading.

21. Pronunciation. (4) Lecture, four hours. Designed to improve clarity, accuracy, and understanding of spoken English through study and practice of pronunciation features as they occur in real speech, using models from television, movies, and online talks. Emphasis on individualized feedback through audio-recording and videorecording technology. Offered in summer only. P/NP or letter grading.

22. Public Speaking. (4) Lecture, four hours. Emphasis on making presentations, interacting with audience members, and leading group discussions. Video-recording of student performances to allow students to improve through self and peer evaluation, as well as through individualized instructor feedback. Offered in summer only. P/NP or letter grading.

23. American Culture through Film. (4) Lecture, four hours. Designed to improve listening comprehension and discussion skills by viewing and analyzing various aspects of American films. Emphasis on understanding and using idiomatic language, expanding vocabulary, recognizing dialect differences, and reflecting on cultural similarities and differences. Offered in summer only. P/NP or letter grading.

24. Preparation for American Universities. (4) Lecture, four hours. Designed for international students planning to study at American universities. Students research, select, or graduate programs, interview advisers at local universities, and learn to write effective personal statements. Additional focus on academic reading, vocabulary, and speaking skills. Offered in summer only. P/NP or letter grading.

25. Academic Reading and Writing. (4) Lecture, four hours. Designed to improve reading speed, comprehension, and knowledge of academic writing conventions. Emphasis on synthesizing information from sources, providing undergraduates, and avoiding plagiarism. Focus on development of ability to revise and edit one’s own writing. Offered in summer only. P/NP or letter grading.

26. Business Communication: Speaking. (4) Lecture, four hours. Emphasis on using business and marketing-focused presentations (both individual and group), handling audience questions, and running effective meetings. Video recording of student performances to allow students to improve through self-evaluation, as well as through individualized instructor feedback. Offered in summer only. P/NP or letter grading.

27. Business Communication: Writing. (4) Lecture, four hours. Emphasis on writing persuasive texts for diverse business audiences. Topics include writing effective summaries and reports, researching companies, and developing a professional online profile. Offered in summer only. P/NP or letter grading.

28. English through Language, Culture, and Society. (4) Lecture, four hours. Survey of selected language structures through their occurrence within contemporary cultural and societal topics within thematic, content-based English language learning environment. Focus on understanding and applying these structures to improve fluency while enhancing critical thinking skills. Meaningful discussions in conjunction with salient written/spoken assignments that situate language within authentic contexts. Topics may include gender, sexuality, politics, humor, intercultural communication and media, environmental issues, and local/regional identities. P/NP or letter grading.

98. Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to lower-division lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

89HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to lower-division lecture course. Individualized study and independent research to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

97A. Variable Topics in English as a Second Language. (4) Lecture, four hours. Specialized topics in English as second language or English for academic purposes. Emphasis varies according to topics covered and/or audience to whom course is directed. May be repeated for credit with topic change. Offered in summer only. P/NP (undergraduates), S/U (graduates), or letter grading.

97B. Variable Topics in English as a Second Language. (2) Lecture, two hours. Enforced requisites: course 338 or proficiency demonstrated on English as a Second Language Placement Examination. Specialized topics in English as second language or English for academic purposes. Emphasis varies according to topics covered and/or audience to whom course is directed. May be repeated for credit with topic change. P/NP (undergraduates), S/U (graduates), or letter grading.

99. Student Research Program. (1 to 2) Tutorial (supervised research or other scholarly work), three hours per week per unit. Entry-level research for lower-division students under guidance of faculty mentor. Students must be in good standing and enrolled in minimum of 12 units (excluding this course). Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP grading.

Upper-Division Courses

103. Pronunciation for Multilingual Students. (4) Lecture, four hours. Emphasis on accurate articulation of sounds, word stress, rhythm, linking between syllables, intonation, and other features of fluent spoken English, using variety of videorecorded models and online pronunciation resources. Individualized feedback provided through frequent recording assignments. P/NP or letter grading.

104. Public Speaking for Multilingual Students. (4) Lecture, four hours. Emphasis on making presentations in academic and professional settings, interacting with audience members, leading group discussions, and preparing for job interviews. Videorecording of student performances to allow students to improve through self and peer evaluation, as well as through individualized instructor feedback. P/NP or letter grading.


106. Workshop in Disciplinary Writing for Multilingual Students. (4) Lecture, four hours. Emphasis on making presentations in academic and professional settings. Focus on improvement of speaking, writing, and presentation skills. Workshop held in conjunction with a required undergraduate lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. P/NP or letter grading.

107. Academic Reading and Vocabulary for Multilingual Students. (4) Lecture, four hours. Instruction in and practice of academic reading skills using authentic university texts. Focus on improving reading rate and comprehension, expanding academic vocabulary, and developing critical reading skills. P/NP or letter grading.

109. Literature and Language for Multilingual Students. (4) Lecture, four hours. Emphasis on satisfaction of English as a Second Language requirement. Writing of texts that are rhetorically appropriate for discipline-specific audiences. Extensive revising of papers to allow writers to edit their texts for grammatical appropriateness and for clear and coherent style. Focus on language and writing issues of concern to multilingual writers. P/NP or letter grading.

189. Advanced Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to undergraduate lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

189HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to upper-division lecture course. Individual study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.
Graduate Courses

300. Intermediate Writing and Communication for International Graduate Students. (4) Lecture, five hours. Prerequisite: proficiency demonstrated on English as a Second Language Placement Examination. Development of academic writing, reading, and language skills with focus on reading comprehension, vocabulary development, and analysis of discipline-specific research articles, with additional work on fundamental composition techniques, grammar, and editing. S/U or letter grading.

301. High-Intermediate Writing and Communication for International Graduate Students. (4) Lecture, five hours. Prerequisite: course 300 or proficiency demonstrated on English as a Second Language Placement Examination. Development of academic writing skills with focus on reading comprehension, vocabulary development, and composition techniques, with additional work on grammar and editing. S/U or letter grading.

302. Advanced Writing Workshop for International Graduate Students. (4) Lecture, five hours. Prerequisite: course 301 or proficiency demonstrated on English as a Second Language Placement Examination. Writing and revision of papers for academic work or publication in student fields of study. Emphasis on rhetorical strategies as well as stylistic and organizational conventions for presenting research-based arguments in disciplines including humanities, social sciences, pure and applied sciences. Focus on grammar structures and vocabulary that contribute to clear and coherent writing style. S/U or letter grading.

310. Pronunciation for International Teaching Assistants. (4) Lecture, five hours. Satisfies Test of Oral Proficiency (TOP) requirement for international graduate students who have received marginal pass on TOP. Focus on accurate articulation of sounds, word stress, linking, and intonation of fluent spoken English, using authentic models of classroom language. Additional emphasis on comprehending typical undergraduate speech. Frequent audiorecordings and videotaped feedback for self-assessment and individualized instructor feedback. S/U or letter grading.

311. Classroom Communication for International Teaching Assistants I. (4) Lecture, five hours. Satisfies Test of Oral Proficiency (TOP) requirement for international graduate students who have received marginal pass on TOP. Focus on stress, rhythm, and intonation of fluent spoken English using videos and transcripts of actual teaching assistants. Communication patterns include introducing syllabus, explaining visuals, handling questions, and interacting in office hours. Microteaching performances video recorded for self, peer, and instructor evaluation. S/U or letter grading.

312. Classroom Communication for International Teaching Assistants II. (4) Lecture, five hours. Satisfies Test of Oral Proficiency (TOP) requirement for international graduate students who have received marginal pass on TOP. Focus on stress, rhythm, and intonation of fluent spoken English using videos and transcripts of actual teaching assistants. Communication patterns include building rapport, giving instructions, handling questions, encouraging participation, and organizing lessons. Microteaching performances video recorded for self, peer, and instructor evaluation. S/U or letter grading.

313. Presentation- and Discussion-Learning Skills for International Teaching Assistants. (4) Lecture, five hours. Prerequisite: Satisfies Test of Oral Proficiency (TOP) requirement for international graduate students who received marginal pass on TOP. Focus on community-oriented effective teaching assistants through interactive teaching demonstrations and student-led discussions of topics from one’s own field. Emphasis on presenting academic subject matter in well-organized, interactive, and accessible way. Student performances video recorded for self, peer, and instructor evaluation. S/U or letter grading.

English Composition Lower-Division Courses

1. Introduction to University Discourse. (4) Formerly numbered English 31A. Five hours. Prerequisite: proficiency demonstrated on Analytical Writing Placement Examination. Introduction to college-level critical reading and academic writing. Engagement in substantive and regular writing and revision through practicing and building on reading, writing, and rhetorical skills. Emphasis on revision, developing syntactic variety and academic vocabulary, and editing for grammar and style. Completion of course with grade of C or better is requisite to course 2. Letter grading.

1A. Intermediate Composition for Multilingual Students. (4) Lecture, five hours. Prerequisite: proficiency demonstrated on Analytical Writing Placement Examination (first-year students) or English as a Second Language Placement Examination (transfer students). Development of academic writing skills with focus on reading comprehension, vocabulary development, and fundamental composition techniques, with additional work on grammar and editing. Letter grading.

1B. High-Intermediate Composition for Multilingual Students. (4) Lecture, five hours. Prerequisite: proficiency demonstrated on Analytical Writing Placement Examination (first-year students) or English as a Second Language Placement Examination (transfer students) or course 1A (C or better). Development of academic writing skills with focus on synthesizing sources, strategies of argumentation, academic reading, and vocabulary, with additional work on grammar and editing. Letter grading.

1C. Advanced Composition for Multilingual Transfer Students. (5) Lecture, four hours. Prerequisite: proficiency demonstrated on Analytical Writing Placement Examination (enforced) or course 1B (C or better). Development of academic writing skills with focus on writing process, grammatical structures key to clear and effective style, and practice with major forms of academic writing, with additional work on critical analysis of readings. Completion of course with grade of C or better satisfies English as a Second Language requirement. Letter grading.

2. Approaches to University Writing. (5) Lecture, four hours. Prerequisite: proficiency demonstrated on Analytical Writing Placement Examination (enforced) or course A (C or better). Second course in university-level discourse, with analysis and critique of university-level texts. Emphasis on revision for argumentative coherence and effective style. Completion of course with grade of C or better satisfies Entry-Level Writing requirement. Letter grading.

2A. Approaches to University Writing for Multilingual Students. (5) Lecture, six hours. Prerequisite: demonstrated proficiency on Analytical Writing Placement Examination (enforced) or course 1B (C or better). Second course in university-level discourse, with analysis and critique of university-level texts. Emphasis on strategies for developing coherent and well-argued pieces of academic writing and for achieving effective and clear expression. Completion of course with grade of C or better satisfies Entry-Level Writing and English as a Second Language requirements. Letter grading.

3. English Composition, Rhetoric, and Language. (5) Lecture, five hours. Prerequisite: satisfactory completion of Entry-Level Writing requirement or course 2 or 2I (C or better). Not open for credit to students with credit for course 3, 3DS, 3E, or 3SL. Rhetorical techniques and skillful argument, with focus on diversity and inclusiveness. Analysis of varieties of academic texts and writing of minimal revisions. Completion of course with grade of C or better satisfies Writing I requirement. Letter grading.

3DS. English Composition, Rhetoric, and Language (Service Learning). (5) Lecture, three hours; fieldwork, two hours. Prerequisite: satisfaction of Entry-Level Writing requirement or course 2 or 2I (C or better). Investigation of diversity and difference through writing and rhetoric. Critical examination of structures and institutions that promote asymmetrical power relations and as responses of diverse groups to these inequalities. Original argumentation that engages with difference and responds to complexities of diverse societies. Service learning adds to understanding of diversity by offering firsthand interactions with diverse communities students are learning about. Completion of course includes service learning and development of critical thinking skills about diversity through classroom discussion focused on readings and service-learning experiences, as well as through reflection and research. Completion of course with grade of C or better satisfies Writing I requirement. Letter grading.

3E. English Composition, Rhetoric, and Language for Engineers. (5) Lecture, three hours. Prerequisite: satisfactory completion of Entry-Level Writing requirement or course 2 or 2I (C or better). Open for credit to students with credit for course 3, 3DS, 3D, or 3SL. Rhetorical techniques and skillful expository writing. Analysis of varieties of academic prose and analysis of technical writing and integration of multimodal elements. Minimum of 20 pages of revised text. Completion of course with grade of C or better satisfies Writing I requirement. Letter grading.

3LS. English Composition, Rhetoric, and Language (Service Learning). (5) Lecture, three hours; fieldwork, two hours. Prerequisite: satisfaction of Entry-Level Writing requirement or course 2 or 2I (C or better). Rhetorical techniques and skillful argument. Analysis of varieties of academic prose and writing of minimum of 20 pages of revised text. Service learning includes meaningful work with off-campus agencies and projects. Analysis of literary works within cultural context to engage students in critical thinking and writing about issues important to academic inquiry and responsible citizenship. Minimum of 15 to 20 pages of revised text required in addition to regular informal writing exercises. Satisfies Writing II requirement. Letter grading.

5W. Literature, Culture, and Critical Inquiry. (5) Lecture, four hours. Prerequisite: course 3. Use of analysis of literary works within cultural context to engage students in critical thinking and writing about issues important to academic inquiry and responsible citizenship. Minimum of 15 to 20 pages of revised text required in addition to regular informal writing exercises. Satisfies Writing II requirement. Letter grading.

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dress specific writing tasks such as timed examination, application essay, effective e-mail, and college paper. Offered in summer only. P/NP or letter grading.

51. Writing Workshop. (2) Lecture, two hours. Limited to students admitted to one UC campus who have not completed their first year of college coursework. Introduction to demands of university writing and often unacted conventions that govern it. Addresses not only specific writing tasks such as timed examinations, effective e-mails, and college papers, but also broader communication concerns such as classroom participation and oral presentations. P/NP or letter grading.

89H. Honors Contrasts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to lower-division lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied toward honors credit for eligible students. Honors content noted on transcript. P/NP or letter grading.

89HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to lower-division study with lecture course instructor to explore topics in greater depth through supplemental readings, papers, or other activities. May be repeated for a maximum of 4 units. Individual honors contract required. Honors content noted on transcript. Letter grading.

99. Student Research Program, (1 to 2) Tutorial (supervised research or other scholarly work), three hours per week. Entry-level research for lower-division students under guidance of faculty mentor. Students must be in good academic standing and enrolled in appropriate major(s) (excluding UCSD course). Individual contract required; consult Undergraduate Research Center. May be repeated. P/NP or letter grading.

Upper-Division Courses

100W. Interdisciplinary Academic Writing. (5) Lecture, four hours. Requisite: course 3 or 3H or English as a Second Language 102. Designed for sophomores. Course in academic writing suitable for both lower- and upper-division students that helps them develop academic papers with range of complexity and length. Focus on conventions of academic prose and genres across disciplines. Written assignments include common forms of academic writing such as argument, research paper, and/or critical essay. Investigation of difference and diversity through writing and rhetoric. Critical examination of structures and institutions that promote asymmetrical power relations, and responses to these structures. Original argumentation that engages with difference and response to complexities of diverse societies. Satisfies Writing II requirement. Letter grading.

110. Writing Adjunct. (4) Lecture, four hours. Requisites: satisfaction of Entry-Level Writing requirement. For 3 or 3H. Students must be concurrently enrolled in course offered in conjunction with course 110 [consult Schedule of Classes for courses so designated]. Credit may not be applied for the use of material from one course and reflect and develop analytic writing skills needed in that course. May be repeated for credit with consent of instructor. P/NP or letter grading.

120A. Language Study for Teachers: Elementary School. (4) Lecture, four hours. Requisite: satisfaction of Entry-Level Writing and English Composition requirements. Designed in English linguistics for special interest to elementary school teachers. Subjects include approaches to English grammar; language acquisition and development; language attitudes; regional and social dialects of American English; bilingual schooling; contribution of English language study to teaching of reading, writing, spelling, and literature. P/NP or letter grading.

120B. Language Study for Teachers of English: Secondary School. (4) Lecture, four hours. Requisite: satisfaction of Entry-Level Writing and English Composition requirements. Review of terminology of English grammar and survey of development of modern grammars. Introduction to basic concepts in the study of language, sociolinguistics, dialectology, and stylistics, especially as applied to analysis and evaluation of writing assigned in secondary school. Intensive study of writing within one academic or professional context. Consult Schedule of Classes for topic focus in specific term. May be repeated for credit with topic change. P/NP or letter grading.

123A–123B–123C. Topics in Rhetoric and Writing. (4–4–4) Lecture, four hours; discussion, one hour. Requisite: satisfaction of Entry-Level Writing requirement. Consult Schedule of Classes for topic focus in specific term. May be repeated for credit with topic change. P/NP or letter grading.

123A. Rhetoric: Audience. (4) Lecture, four hours; discussion, one hour. Requisite: satisfaction of Entry-Level Writing and English Composition requirements. Designed for juniors/seniors. Study of specific topics in relationship between rhetoric/writing and social or political history. Each course may be taken independently for credit. P/NP or letter grading. English majors who wish to use course to satisfy departmental requirements must take it for letter grade. 123A. Gender and Writing; 123B. Autobiographical Writing; 123C. Cultural Studies.

133. Topics in Writing for Multimedia Environments. (5) Lecture, four hours. Requisites: satisfaction of Entry-Level Writing requirement. Consult Schedule of Classes for topic focus in specific term. May be taken independently for credit. P/NP or letter grading. English majors who wish to use course to satisfy departmental requirements must take it for letter grade. 123A. Gender and Writing; 123B. Autobiographical Writing; 123C. Cultural Studies.

137. Writing for Public Speaking. (5) Lecture, four hours. Emphasis on the ability to write persuasively and effectively in both nonfiction and public sectors. Writing genres include mission and vision statements, grant proposals, public service announcements, and outreach campaigns. P/NP or letter grading.

138. Writing for Public Speaking. (5) Lecture, four hours. Emphasis on the ability to write persuasively and effectively in both nonfiction and public sectors. Writing genres include mission and vision statements, grant proposals, public service announcements, and outreach campaigns. P/NP or letter grading.

139. Specialized Writing Business and Social Policy. (5) Lecture, four hours. Requisite: satisfaction of Entry-Level Writing and English Composition requirements. Designed for juniors/seniors. Advanced writing course designed to help students develop stylistic, formal, and argumentative writing in various rhetorical contexts, including different sections that emphasize rhetorical values of major professions and research areas. May be taken independently for credit. P/NP or letter grading.

132. Variable Topics in Rhetoric and Writing. (Formerly numbered 132D.) Lecture, four hours. Requisites: satisfaction of Entry-Level Writing requirement, consultation with instructor. Intensive study of writing within one academic or professional context. Consult Schedule of Classes for topic focus in specific term. May be repeated for credit with topic change. P/NP or letter grading.

132A–132B–132C. Topics in Rhetoric and Writing. (4–4–4) Lecture, four hours; discussion, one hour. Requisite: satisfaction of Entry-Level Writing and English Composition requirements. Designed for juniors/seniors. Study of specific topics in relationship between rhetoric/writing and social or political history. Each course may be taken independently for credit. P/NP or letter grading. English majors who wish to use course to satisfy departmental requirements must take it for letter grade. 123A. Gender and Writing; 123B. Autobiographical Writing; 123C. Cultural Studies.

131A. Specialized Writing Business and Social Policy. (5) Lecture, four hours. Requisite: satisfaction of Entry-Level Writing and English Composition requirements. Designed for juniors/seniors. Advanced writing course designed to help students develop stylistic, formal, and argumentative writing in various rhetorical contexts, including different sections that emphasize rhetorical values of major professions and research areas. May be taken independently for credit. P/NP or letter grading.

132. Variable Topics in Rhetoric and Writing. (Formerly numbered 132D.) Lecture, four hours. Requisites: satisfaction of Entry-Level Writing requirement, consultation with instructor. Intensive study of writing within one academic or professional context. Consult Schedule of Classes for topic focus in specific term. May be repeated for credit with topic change. P/NP or letter grading.

132A–132B–132C. Topics in Rhetoric and Writing. (4–4–4) Lecture, four hours; discussion, one hour. Requisite: satisfaction of Entry-Level Writing and English Composition requirements. Designed for juniors/seniors. Study of specific topics in relationship between rhetoric/writing and social or political history. Each course may be taken independently for credit. P/NP or letter grading. English majors who wish to use course to satisfy departmental requirements must take it for letter grade. 123A. Gender and Writing; 123B. Autobiographical Writing; 123C. Cultural Studies.

133. Topics in Writing for Multimedia Environments. (5) Lecture, four hours. Requisites: satisfaction of Entry-Level Writing requirement. Consult Schedule of Classes for topic focus in specific term. May be taken independently for credit. P/NP or letter grading. English majors who wish to use course to satisfy departmental requirements must take it for letter grade. 123A. Gender and Writing; 123B. Autobiographical Writing; 123C. Cultural Studies.

136. Practical Writing and Editing. (5) Formerly numbered 136A.) Lecture, four hours. Requisites: satisfaction of Entry-Level Writing requirement, consultation with instructor. Intensive study of writing in professional contexts that requires students to work within specific field of science or technology. May be repeated for maximum of 10 units. P/NP or letter grading.

137. Writing for Public Speaking. (5) Lecture, four hours. Requisites: satisfaction of Entry-Level Writing requirement, consultation with instructor. Intensive study of writing in professional contexts that requires students to work within specific field of science or technology. May be repeated for maximum of 10 units. P/NP or letter grading.

M138. Topics in Creative Writing. (5) Same as English M138.) Seminar, three hours. Requisite: English Composition 3 or 3D or 3SL. Introductory workshop in genre(s) of instructor choice, that may include mixed genres, playwriting, screenplay, literary nonfiction, or others. Enrollment in more than one section per quarter is not permitted for maximum of 10 units. May not be used to satisfy work shop requirements for English creative writing concentration. P/NP or letter grading.

M141. Current Methods of Language Teaching. (5) Same as Linguistics M141.) Lecture, four hours; discussion, one hour. Enforced requisite: Linguistics 20. Survey of theory and practice in teaching second languages, including (1) past and present methods used to teach second language; (2) current theory and practice underlying skills-based instruction and integrated approaches, and (3) factors that affect second language acquisition and learning. Development of knowledge base in and rationale for design, development, implementation, and evaluation of second language instruction programs. P/NP or letter grading.

M142. Teaching Grammar and Style. (4) Lecture, four hours. Requisite: Linguistics 20. Survey of English language structures and conventions to better understand
375. Teaching Apprentice Practicum. (1 to 4) Seminar, to be arranged. Preparation: apprentice personnel employment as teaching assistant, associate, or fellow. Teaching apprenticeship under active guidance and supervision of regular faculty member responsible for curriculum. May be repeated for credit. Individual contract required. P/NP or letter grading.

175. Apprenticeship in Composition Tutoring. (2) Seminar, two hours. Required: satisfactory performance in Writing II requirement. Prerequisite: Peer Learning Facilitators (PLFs) who work in Undergraduate Writing Center practice techniques for monitoring in composition and peer learning methodologies. Overview of language, writing, and literacy needs of diverse college-age writers. Reading, using computer-assisted writers' manuals, and examining actual writing. PLFs receive guidance in their tutoring process via observations by course instructor and their peers. May be repeated for credit with consent of instructor. P/NP grading.

180. Research Writing Workshop. (5) Lecture, three hours; laboratory, four hours. Advanced workshop designed for juniors and seniors engaged in large-scale research projects in humanities or social sciences. Students hone research, critical reading, and writing skills through a series of digital research note-taking, and writing workshops. Students practice giving, receiving, and incorporating feedback through peer review, and develop research projects in consultation with faculty and program tutors. Culminates with completion of literature review, academic article, or thesis chapter. P/NP or letter grading.

189HC. Honors Contracts. (1) Tutorial, three hours. Limited to students in College Honors Program. Designed as adjunct to undergraduate lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied for credit only for eligible students. Honors content noted on transcript. P/NP or letter grading.

M192. Undergraduate Practicum in English: Journals. (2) Seminar, two hours. Seminar on conducting peer reviews and conferences in clusters contexts. Practical concerns of preparing students to write course assignments, marking and grading essays, and conducting peer reviews and conferences. P/NP or NP grading.

199. Community or Corporate Internships in English Composition. (4) Tutorial, to be arranged. Required: 3 or 3H, satisfaction of Writing II requirement. Limited to juniors/seniors. Internship in supervised setting in community agency or business. Students meet on regular basis with instructor and provide periodic reports of their experience. May be repeated for credit. Individual contract required. Honors content noted on transcript. P/NP or letter grading.

190. Advanced Honors Seminars. (1) Seminar, three hours. Limited to 20 students. Designed as adjunct to undergraduate lecture course. Exploration of topics in greater depth through supplemental readings, papers, or other activities and led by lecture course instructor. May be applied for credit only for eligible students. Honors content noted on transcript. P/NP or letter grading.

M495. Teaching Preparation Seminar: Writing for Disciplines. (4) Seminar, two hours. Enforced requisite: course 495E. Required of all teaching assistants for Writing II courses not exempt by appropriate departmental or program training. Mentoring conferences and teaching observations, with focus on student-centered pedagogy, assessment of student writing, guidance of revision process, and specialized writing problems that may occur in disciplinary contexts. Practical concerns of creating assignments, marking and grading essays, and conducting peer reviews and conferences. May be repeated for credit. S/U grading.

M495J. Teaching Preparation Seminar: Writing for Engineering Disciplines. (4) Seminar, two hours. Enforced requisite: course 495E. Required of all teaching assistants for Writing II courses not exempt by appropriate departmental or program training. Mentoring conferences and teaching observations, with focus on student-centered pedagogy, assessment of student writing, guidance of revision process, and specialized writing problems that may occur in engineering contexts. Practical concerns of preparing students to write course assignments, marking and grading essays, and conducting peer reviews and conferences. S/U grading.

M495K. Supervised Teaching of Writing for Engineering Disciplines. (2) (Same as Electrical and Computer Engineering M495K.) Seminar, two hours. Limited to graduate and engineering majors. Required of all graduate teaching assistants for cluster in sequence, concurrently while holding a TA appointment. Seminar on teaching strategies for being a TA with emphasis on pedagogical strategies for being a TA with emphasis on student-centered learning, addressing needs of students with disabilities, and conducting and assessing student-centered learning. S/U grading.

M495M. Supervised Teaching of Writing for Engineering Disciplines. (2) (Same as Electrical and Computer Engineering M495M.) Seminar, two hours. Limited to graduate and engineering majors. Required of all graduate teaching assistants for cluster in sequence, concurrently while holding a TA appointment. Seminar on teaching strategies for being a TA with emphasis on pedagogical strategies for being a TA with emphasis on student-centered learning, addressing needs of students with disabilities, and conducting and assessing student-centered learning. S/U grading.
495O. Supervised Teaching of Clusters Seminar. (2) Seminar; two hours. Requisite: course 495N. Required of all Clusters teaching assistants teaching their first Clusters seminar. Mentoring conferences and teaching observations, with focus on student-centered pedagogy, assessment of student writing, guidance of revision process, and specialized writing problems that may occur in disciplinary and Clusters contexts. Practical concerns of creating assignments, responding to and grading essays, and conducting peer reviews and conferences. May be repeated for credit. S/U grading.

495P. Teaching Preparation Seminar: Empowering Culturally Diverse Student Writers. (2) Seminar; two hours. Limited to graduate students. Recommended for all teaching assistants planning to teach English composition as part of AAP's summer bridge programs. Focus on pedagogy that serves heterogeneous classrooms, with emphasis on diversity of race, socioeconomic status, citizenship status, and academic preparedness. Practical concerns include lesson planning and professionalization for composition instructors. S/U grading.

495S. Supervised Summer Teaching of Language and Composition. (2) Seminar, 90 minutes. Requisite: course 495A or 495C. Recommended for all teaching assistants teaching English as a second language, English composition, and Writing II courses during summer. Focus determined on individual basis according to class appointed and may include oral skills pedagogy, composition pedagogy, course design, assessment of student performance, and specialized problems that may occur in intensive summer language and/or composition courses. Supervision during appointment and mentor meetings and reflection on teaching experience following summer appointment. S/U grading.

499. Academic Professionalization Colloquium. (2) Colloquium/workshop, three hours every other week. Limited to graduate students. Rotating speakers on topics such as designing digital teaching portfolio, drafting academic/teaching curriculum vitae (CV), writing application letters for academic jobs, and pursuing alternative academic careers. Speaker sessions and panels to be followed by workshops. Revision of application letter, CV, teaching portfolio, or other relevant document to be determined in consultation with colloquium organizer. S/U grading.
**APPENDIX A: REGULATIONS AND POLICIES**

**Nondiscrimination**

The University of California, in accordance with applicable federal and state laws and University policies, does not discriminate on the basis of race, color, national origin, religion, sex, gender identity, pregnancy (including pregnancy, childbirth, and medical conditions related to pregnancy and childbirth), physical or mental disability, medical condition (cancer-related or genetic characteristics), ancestry, marital status, age, sexual orientation, citizenship, or service in the uniformed services (including membership, application for membership, performance of service, application for service, or obligation for service in the uniformed services). The University also prohibits sexual harassment and harassment on any of the above bases. This nondiscrimination policy covers admission, access, and treatment in University programs and activities.

Students may grieve any action that they believe discriminates against them on the ground of race, color, national or ethnic origin, alienage, sex, religion, age, sexual orientation, gender identity, marital status, veteran status, or perceived membership in a category of status protected by federal or state law. Inquiries regarding the application of Title IX policies may be directed to the Title IX Office, 2255 Murphy Hall, 310-206-3417, or the U.S. Department of Education Office for Civil Rights.

Students are members of both society and the academic community with attendant rights and responsibilities. Students are expected to make themselves aware of and comply with the law, and with University and campus policies and regulations. While many UCLA policies and regulations parallel federal, state, and local laws, UCLA standards may be set higher. The University of California Policies Applying to Campus Activities, Organizations, and Students (UC Policies) have been incorporated into the UCLA Student Conduct Code either by adapting or inserting verbatim the language of the policies. Students may contact the Office of Student Conduct, Office of Ombuds Services, or Student Legal Services for advice concerning these policies.

**Student Conduct Policies**

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**A. Jurisdiction**

The University has jurisdiction over student conduct that occurs on University property, or in connection with official University functions whether on or off University property. The University may, at its sole discretion, exercise jurisdiction over conduct that occurs on campus and that would violate student conduct when (1) the alleged misconduct indicates the student poses a threat to the safety or security of any member(s) of the University community or (2) the alleged misconduct involves academic work which has been previously submitted for evaluation or for assisting, facilitating, or participating in the planning of an act that violates this Code (or an act that would be in violation of this Code if it were carried out by a student). Violations include the following types of misconduct:

102.01: Academic Dishonesty. All forms of academic misconduct, including but not limited to cheating, fabrication or falsification, plagiarism, multiple submissions, or facilitating academic misconduct. For the purposes of the UCLA Student Conduct Code, the following definitions apply:

102.01a: Cheating. Includes, but is not limited to, the use of unauthorized materials, information, or study aids in any academic exercise; the alteration of any answers on a graded document before submitting it for regrading; or the failure to observe the expressed procedures or instructions of an academic exercise (e.g., examination instructions regarding alternate seating or conversation during an examination).

102.01b: Fabrication. Fabrication includes, but is not limited to, falsification or invention of any information or citation in an academic exercise, including fabrication or falsification of research. Fabrication of research is making up data or results and recording or reporting them. Fabrication of research is manipulating research materials, equipment, or processes, or changing or omitting data or results such that the research is not accurately represented in the research record.

102.01c: Plagiarism. Plagiarism includes, but is not limited to, the use of another person’s work (including words, ideas, designs, or data), without giving appropriate attribution or citation. This includes, but is not limited to, representing, with or without the intent to deceive, part or all of an entire work obtained by purchase or otherwise, as the student’s original work; the omission or failure to acknowledge the true source of the work; or representing an altered but identifiable work of another person or the student’s own previous work as if it were the student’s original or new work.

Unless otherwise specified by the faculty member, all submissions, whether in draft or final form, to meet course requirements (including a paper, project, take-home examination, computer program, oral presentation, or other work) must either be the student’s own work, or must clearly acknowledge the source.

102.01d: Multiple Submissions. Multiple submissions include, but is not limited to, the resubmission in identical or similar form by a student of any work which has been previously submitted for credit, whether at UCLA or any other school, college, or university in identical or similar form in one course to fulfill the requirements of a second course, without the informed permission/consent of the student's original instructor. The University will consider the seriousness of the alleged misconduct; whether the alleged victim is a member of the campus community; the ability of the University to gather information, including the statements of witnesses; and whether the off-campus conduct is part of a series of actions that occurred both on and off campus.

**B. Types of Misconduct**

Students may be held accountable for committing or attempting to commit a violation of the UCLA Student Conduct Code or for assisting, facilitating, or participating in the planning of an act that violates this Code or an act that would be in violation of this Code if it were carried out by a student. Violations include the following types of misconduct:

102.02: Academic Dishonesty. All forms of academic misconduct, including but not limited to cheating, fabrication or falsification, plagiarism, multiple submissions, or facilitating academic misconduct. For the purposes of the UCLA Student Conduct Code, the following definitions apply:

102.02a: Cheating. Includes, but is not limited to, the use of unauthorized materials, information, or study aids in any academic exercise; the alteration of any answers on a graded document before submitting it for regrading; or the failure to observe the expressed procedures or instructions of an academic exercise (e.g., examination instructions regarding alternate seating or conversation during an examination).

102.02b: Fabrication. Fabrication includes, but is not limited to, falsification or invention of any information or citation in an academic exercise, including fabrication or falsification of research. Fabrication of research is making up data or results and recording or reporting them. Fabrication of research is manipulating research materials, equipment, or processes, or changing or omitting data or results such that the research is not accurately represented in the research record.

102.02c: Plagiarism. Plagiarism includes, but is not limited to, the use of another person’s work (including words, ideas, designs, or data), without giving appropriate attribution or citation. This includes, but is not limited to, representing, with or without the intent to deceive, part or all of an entire work obtained by purchase or otherwise, as the student’s original work; the omission or failure to acknowledge the true source of the work; or representing an altered but identifiable work of another person or the student’s own previous work as if it were the student’s original or new work.

Unless otherwise specified by the faculty member, all submissions, whether in draft or final form, to meet course requirements (including a paper, project, take-home examination, computer program, oral presentation, or other work) must either be the student’s own work, or must clearly acknowledge the source.

102.02d: Multiple Submissions. Multiple submissions include, but is not limited to, the resubmission in identical or similar form by a student of any work which has been previously submitted for credit, whether at UCLA or any other school, college, or university in identical or similar form in one course to fulfill the requirements of a second course, without the informed permission/consent

**APPENDIX B: REGULATIONS AND POLICIES**

**Nondiscrimination**

The University of California, in accordance with applicable federal and state laws and University policies, does not discriminate on the basis of race, color, national origin, religion, sex, gender identity, pregnancy (including pregnancy, childbirth, and medical conditions related to pregnancy and childbirth), physical or mental disability, medical condition (cancer-related or genetic characteristics), ancestry, marital status, age, sexual orientation, citizenship, or service in the uniformed services (including membership, application for membership, performance of service, application for service, or obligation for service in the uniformed services). The University also prohibits sexual harassment and harassment on any of the above bases. This nondiscrimination policy covers admission, access, and treatment in University programs and activities.

Students may grieve any action that they believe discriminates against them on the ground of race, color, national or ethnic origin, alienage, sex, religion, age, sexual orientation, gender identity, marital status, veteran status, or perceived membership in a category of status protected by federal or state law. Inquiries regarding the application of Title IX policies may be directed to the Title IX Office, 2255 Murphy Hall, 310-206-3417, or the U.S. Department of Education Office for Civil Rights.
of the instructor of the second course; or the submission by a student of any work submitted for credit in identical or similar form in one course to fulfill the requirements of a concurrent course, without the permission/consent of the instructors of both courses.

102.01e: Facilitating Academic Dishonesty. Facilitating academic dishonesty includes, but is not limited to, knowingly helping another student commit an act of academic dishonesty.

102.01f: Coercion Regarding Grading or Evaluation of Coursework. Threatening personal or professional repercussions or discipline against an instructor to coerce the instructor to change a grade or otherwise evaluate the student’s work by criteria not directly reflective of coursework.

102.01g: Unauthorized Collaboration. Unauthorized collaboration means working with others without the expressed permission of the instructor on any submission, whether in draft or final form, to meet course requirements (including a paper, project, take-home examination, computer program, oral presentation, or other work). Collaboration between students will be considered unauthorized unless expressly part of the assignment in question, or expressly permitted by the instructor.

102.02: Other Forms of Dishonesty. Other forms of dishonesty, including but not limited to fabricating information or knowingly furnishing false information or reporting a false emergency to the University.

102.03: Forgery. Forgery, alteration, or misuse of any University document, record, key, electronic device, or identification, or submission of any forged document or record to the University.

102.04: Theft, Damage, or Destruction of Property. Theft includes taking without permission or, misappropriation of any property or services of the University or property of others while on University premises or at official University functions; or possession of any property that the student had knowledge or reasonably should have had knowledge was stolen.

102.04b: Damage or Destruction of Property. Damage or destruction of any University property or the property of others while on University premises or at official University functions.

102.05: Computer Misuse. Theft or abuse of University computers and other University electronic resources such as computer and electronic communications facilities, systems, and services. Abuses include, but are not limited to, unauthorized entry, use, transfer, or tampering with the communications of others; use of either software or physical devices to enroll in classes for yourself or on behalf of others using processes other than those specifically delineated by the UCLA Registrar’s Office; interference with the work of others and with the operation of computer or electronic communications facilities, systems, and services; or violations of copyright laws, whether by theft, unauthorized sharing, or other misuse of copyrighted materials such as songs, movies, software, photos, or text. Violation of the University of California Electronic Communications Policy or of any other University acceptable or allowable use policy is also considered a violation of Section 102.05.

102.06: Unauthorized Use of University Resources or Name. Unauthorized entry to, possession of, receipt of, or use of any University services, equipment, resources, or properties, including the University’s name, insignia, or seal.

102.07: Violations of University Policy. Students may be subject to discipline for violation of any University policy.

102.07a: Housing. Violations of policy regarding University-owned, -operated, or -leased housing facilities or other housing facilities located on University property.

102.07b: University Parking. Violations of policy regarding University parking services or University-owned or -operated parking facilities.

102.07c: University Recreation. Violations of policy regarding University recreation services, programs, or within University-owned or -operated recreation facilities.

102.07d: University Identification Card (BruinCard). Violation of policies, regulations, or rules governing use of official University identification cards, including manufacturing or possession of false identification cards, using another person’s BruinCard to obtain services or establish identity, facilitating the misuse of one’s BruinCard by another person to obtain services or establish identity, or other misuse of the BruinCard.

102.08: Conduct that Threatens Health or Safety. Conduct that threatens the health or safety of any person, including oneself. This includes, but is not limited to, physical assault, sexual misconduct, domestic violence, dating violence, threats that cause a person reasonably to be in sustained fear for one’s own safety or the safety of her or his immediate family, incidents involving the use or display of a weapon likely to cause great bodily harm, and intoxication or impairment through the use of alcohol or controlled substances to the point one is unable to exercise care for one’s own safety, or other conduct that threatens the health or safety of any person.

For incidents involving allegations of sexual violence (including domestic violence, dating violence, and sexual assault), see the UC Policy on Sexual Violence and Sexual Harassment (hereafter referred to as the SVSH Policy).

102.09: Sexual Harassment. For incidents involving allegations of sexual harassment, see the SVSH Policy.

102.10: Stalking. Stalking is behavior in which a student repeatedly engages in a course of conduct directed at another person and makes a credible threat with the intent to place that person in reasonable fear for his or her safety, or the safety of his or her family, where the threat is reasonably determined by the University to seriously alarm, torment, or terrorize the person, and where the threat is additionally determined by the University to serve no legitimate purpose.

The UCLA Student Conduct Code prohibits retaliation against a person who reports stalking, assists someone with a report of stalking, participates in any manner in an investigation or resolution of a stalking report. Retaliation includes threats, intimidation, reprisals, and/or adverse actions related to employment or education.

For stalking violations of a sexual nature, see the SVSH Policy.

102.11: Harassment. Harassment is defined as conduct that is so severe and/or pervasive, and objectively offensive, and that so substantially impairs a person's access to University programs or activities that the person is effectively denied equal access to the University’s resources and opportunities.

Sanctions may be enhanced where an individual was selected for harassment because of the individual’s race, color, national or ethnic origin, citizenship, sex, religion, age, sexual orientation, gender identity, pregnancy, marital status, ancestry, service in the uniformed services, physical or mental disability, medical condition, or perceived membership in any of these classifications.

For violations involving sexual harassment and sexual violence (including domestic violence, dating violence, and sexual assault), see the SVSH Policy.

102.12: Hazing. Participating in, engaging in, or supporting hazing or any method of initiation or preinitiation into a campus organization or other activity engaged in by the organization or members of the organization at any time that causes, or is likely to cause, physical injury or personal degradation or disgrace resulting in psychological harm to any student or other person.

102.13: Obstruction or Disruption. Obstruction or disruption of teaching, research, administration, disciplinary procedures, or other University activities.

102.14: Disorderly Behavior. Engaging in disorderly or lewd conduct.

102.15: Disturbing the Peace. Participation in a disturbance of the peace or unlawful assembly.

102.16: Failure to Comply. Failure to identify oneself to, or comply with directions of, a University official or other public official acting in the performance of her or his duties while on University property or at official University functions, or resisting or obstructing such University or other public officials in the performance of or the attempt to perform their duties.

102.17: Controlled Substances. Manufacture, distribution, dispensing, possession, use, or sale of, or the attempted manufacture, distribution, dispensing, or sale of controlled substances (including medicinal marijuana), identified in federal and state laws or regulations, which is unlawful or otherwise prohibited by, or not in compliance with, any University policy or campus regulations or being unable to exercise care for one’s own safety because one is under the influence of controlled substances.

NOTE: This provision shall not apply to circumstances wherein the person under the influence was given a controlled substance without her or his knowledge and permission.

102.18: Alcohol. Manufacture, distribution, dispensing, possession, use, or sale of, or the attempted manufacture, distribution, dispensing, or sale of alcohol which is unlawful or otherwise prohibited by, or not in compliance with, University policy or campus regulations, or being unable to exercise care for one’s own safety because one is under the influence of alcohol. NOTE: This provision shall not apply to circumstances wherein the person...
102.19: Destructive Devices. Possession, use, storage, or manufacture of explosives, firebombs, or other destructive devices.

102.20: Weapons and Replica Weapons.

102.20a: Weapons. Except as expressly permitted by law, possession, use, storage, or manufacture of a firearm or other weapon capable of causing bodily injury is prohibited.

102.20b: Replica Weapons. Except as expressly permitted by UCPD policy, possession, use, storage, or manufacture of replicas of firearms or other weapons is prohibited.

102.21: Violation of Disciplinary Conditions. Violation of the conditions contained in the terms of a disciplinary action imposed under the UCLA Student Conduct Code.

102.22: Violation of Interim or Emergency Suspension Conditions. Violation of the conditions contained in a written Notice of Interim or Emergency Suspension issued pursuant to Section IV of the UCLA Student Conduct Code.

102.23: Unauthorized Use or Sale of University Materials. Except as provided herein, no student shall give, sell, or otherwise distribute to others or publish any recording made during any course presentation without the written consent of the University and the instructor/presenter. This policy is applicable to any recording in any medium, including handwritten or typed notes.

Any distribution of a recording of a course presentation at UCLA that captures the actual sounds and/or images of that course presentation, in any medium, must consider not only the rights of the instructor and the University, but also those of other parties. Examples include the privacy rights of students enrolled in the course, the rights of guest lecturers, and the copyright interests in materials authored by others that are displayed or presented during the course presentation. In addition to the consent of the University and the instructor/presenter, it may be necessary to secure permission from these other parties before any recording, distribution, publication, or communication is legally permitted.

102.23a: Selling Academic Materials. Selling, preparing, or distributing for any commercial purpose academic materials, including but not limited to written, video, or audio recordings of any course unless authorized by the University in advance and explicitly permitted by the course instructor in writing. The unauthorized sale or commercial distribution of academic materials, including but not limited to recordings, by a student is a violation of the UCLA Student Conduct Code whether or not it was the student or someone else who prepared the notes or recordings. This policy is applicable to any recording in any medium, including handwritten or typed notes.

102.23b: Copying Course Notes. Copying for any commercial purpose handouts, readers, or other course materials provided by an instructor as part of a University of California course unless authorized by the University in advance and explicitly permitted by the course instructor or the copyright holder in writing (if the instructor is not the copyright holder). Students currently enrolled in a course may provide a copy of their own notes or recordings to other currently enrolled students for noncommercial purposes reasonably arising from participation in the course, including individual or group study.

102.23c: Commencement Tickets. Selling commencement tickets.

102.24: Misuse of University Property. Organizing or carrying out unlawful activity on University property.

102.25: Violations of Law. Students may be subject to discipline on the basis of a conviction under any federal, California state, or local criminal law, when the conviction constitutes reasonable cause to believe that the student poses a threat to the health or safety of any person, or to the security of any property, on University premises or at official University functions, or to the orderly operation of the campus.

102.26: Terrorizing Conduct. Conduct, where the actor means to communicate a serious expression of intent to terrorize, or acts in reckless disregard of the risk of terrorizing, one or more University students, faculty, or staff. Terrorize means to cause a reasonable person to fear bodily harm or death, perpetrated by the actor or those acting under his/her control. Reckless disregard means consciously disregarding a substantial risk. This section applies without regard to whether the conduct is motivated by race, ethnicity, personal animosity, or other reasons. This section does not apply to conduct that constitutes the lawful defense of oneself, or another, or of property.

102.27: Unwanted Personal Contact. Contact (whether physical, verbal, written, face-to-face, telephonic, electronic, or by other means) that (1) a student knows or should know is unwanted, (2) is communicated directly to one or more specific students, faculty, or staff, (3) constitutes severe and/or pervasive, and objectively offensive, conduct, and (4) does not constitute speech protected by the First Amendment to the U.S. Constitution (e.g., speech in a public forum on a matter of public concern).

102.28: Expectation of Privacy. The following is prohibited:

Making a video recording, audio recording, taking photographs, or streaming audio/video of any person in a location where the person has a reasonable expectation of privacy, without that person’s knowledge and express consent.

Making a video recording, audio recording, or streaming audio/video of private nonpublic conversations and/or meetings, without the knowledge and express consent of all recorded parties.

Looking through a hole or opening, into, or otherwise viewing, by means of any instrumentality, the interior of a private location without the subject’s knowledge and express consent.

Express consent is clear, unmistakable, and voluntary consent that may be in written, oral, or nonverbal form.

Private locations are settings where the person reasonably expected privacy. For example, in most cases the following are considered private locations: residential living quarters, bathrooms, locker rooms, and personal offices.

Private nonpublic conversations and/or meetings include any communication carried on in circumstances that reasonably indicate that any party wants the communication to be confined to the parties, but excludes a communication made in a public gathering, or in any other circumstance in which the parties to the communication may reasonably expect that the communication will be overheard or recorded.

These provisions do not extend to public events or discussions, nor to lawful official law or policy enforcement activities. These provisions may not be utilized to impinge on the lawful exercise of constitutionally protected rights of freedom of speech or assembly.

Sexual Assault and Other Sexual Violence

UCLA does not tolerate sexual violence and responds to all reports of sexual violence in accordance with UCLA procedures and the UC Policy on Sexual Violence and Sexual Harassment. Sanctions for a student found responsible for committing sexual assault or other sexual violence may include dismissal from the University. See the sexual violence prevention and response policies web page.

If a Person Has Been Sexually Assaulted

Those who believe that they are the victims of sexual assault can:

1. Immediately call the police department. If possible, call the UCLA Police Department at 310-825-1491 or 911.

2. Get medical attention. Campus police will provide transportation to the Rape Treatment Center at Santa Monica-UCLA Medical Center for medical treatment and evidence collection. A confidential counselor from the Rape Treatment Center will be available at that time, free of charge.

3. Report to Title IX. You have the right to report to the University, and you can do that by contacting the Title IX Office by e-mail or by calling 310-206-3417. If the other person is a student or employee, the Title IX Office can take administrative action, and the Title IX Office can explain those options to you. In addition, the Title IX Office offers interim measures to prevent individuals from experiencing additional harm. Those measures can include, but are not limited to, academic accommodations, no-contact directives prohibiting contact, and housing transfers.

Utilize confidential campus and community support services:

1. Contact a Campus Assault Resources and Education (CARE) advocate. CARE Advocates are available to support and advocate for UCLA victims or survivors. They can discuss options and alternatives, help identify the most appropriate support services, and provide information about medical care, psychological counseling,
academic assistance, legal options, how to file a police report, and how to file a complaint with the Title IX Office. CARE advocates are available to assist any member of the UCLA community regardless of where or when the assault occurred. For assistance, contact CARE at 310-206-2465 or go to Wooden Center West first floor and ask to speak to a CARE advocate.

2. Contact the Rape Treatment Center at Santa Monica-UCLA Medical Center (424-259-7208) for free emergency medical treatment and counseling services.

Caring assistance is available for persons who have been subjected to sexual violence. They are encouraged in the strongest terms to make a report to the Title IX Office.

Harassment

Sexual Harassment

The University of California is committed to creating and maintaining a community where all persons who participate in University programs and activities can work and learn together in an atmosphere free from all forms of harassment, exploitation, or intimidation. Every member of the University community should be aware that the University is strongly opposed to sexual harassment and that such behavior is prohibited both by law and by the

UC Policy on Sexual Violence and Sexual Harassment

(hereafter referred to as the SVSH Policy). The University will respond promptly and effectively to reports of sexual harassment and will take appropriate action to prevent, correct, and, if necessary, discipline behavior that violates the SVSH Policy. See the Title IX sexual harassment prevention website.

Definitions

For detailed definitions of sexual harassment, refer to the SVSH Policy.

Complaint Resolution

An individual who believes that they have been sexually harassed may contact Title IX Director Mohammed Cato, 2255 Murphy Hall, 310-206-3417. If a student reports sexual harassment or sexual violence to a responsible employee, as defined under the SVSH Policy, the responsible employee must report it to the Title IX director. Responsible employees include academic personnel, faculty members, and most other employees who are not defined as a confidential resource under the SVSH Policy.

Title IX prohibits sex discrimination, including sexual harassment and sexual violence, in any education program or activity receiving federal financial assistance. Inquiries regarding Title IX may be directed to the Title IX Office, 2255 Murphy Hall, 310-206-3417, or the U.S. Department of Education Office for Civil Rights.

Other Forms of Harassment

The University strives to create an environment that fosters the values of mutual respect and tolerance and is free from discrimination based on race, ethnicity, sex, religion, sexual orientation, disability, age, and other personal characteristics. Certainly harassment, in its many forms, works against those values and often corrodes a person’s sense of worth and interferes with one’s ability to participate in University programs or activities. While the University is committed to the free exchange of ideas and the full protection of free expression, the University also recognizes that words can be used in such a way that they no longer express an idea, but rather injure and intimidate, thus undermining the ability of individuals to participate in the University community.

The University of California Policies Applying to Campus Activities, Organizations, and Students (hereafter referred to as Policies) presently prohibit a variety of conduct by students which, in certain contexts, may be regarded as harassment or intimidation.

For example, harassing expression which is accompanied by physical abuse, threats of violence, or conduct that threatens the health or safety of any person on University property or in connection with official University functions may subject an offending student to University discipline under the provisions of the Policies.

Similarly, harassing conduct, including symbolic expression, which also involves conduct resulting in damage to or destruction of any property of the University or property of others while on University premises may subject a student violator to University discipline under the provisions of Section 102.04 of the Policies.

Further, under specific circumstances described in Section 102.11 of the Policies, students may be subject to University discipline for misconduct which may consist solely of expression. Copies of these Policies are available in the Office of Student Conduct, 1104 Murphy Hall.

Complaint Resolution

One of the necessary measures in our efforts to assure an atmosphere of civility and mutual respect is the establishment of procedures which provide effective informal and formal mechanisms for those who believe that they have been victims of any of the above misconduct.

Many incidents of harassment and intimidation can be effectively resolved through informal means. For example, an individual may wish to confront the alleged offender immediately and firmly. An individual who chooses not to confront the alleged offender and who wishes help, advice, or information is urged to contact the Office of Student Conduct.

In addition to providing support for those who believe they have been victims of harassment, the Office of Student Conduct can help students to consider which of the available options is the most useful for the particular circumstances.

With regard to the Universitywide Student Conduct Harassment Policy, complainants should be aware that not all conduct which is offensive may be regarded as a violation of this Policy and may, in fact, be protected expression. Thus, the application of formal institutional discipline to such protected expression may not be legally permissible. Nevertheless, the University is committed to reviewing any complaint of harassing or intimidating conduct by a student and intervening on behalf of the complainant to the extent possible.

Faculty Code of Conduct

The entire Faculty Code of Conduct, as well as any updates, can be found in the Academic Personnel Manual of the University of California. Part IIA of the Faculty Code of Conduct outlines faculty obligations to students and reads as follows:

Teaching and Students

Ethical Principles: “As teachers, the professors encourage the free pursuit of learning of their students. They hold before them the best scholarly standards of their discipline. Professors demonstrate respect for students as individuals and adhere to their proper roles as intellectual guides and counselors. Professors make every reasonable effort to foster honest academic conduct and to assure that their evaluations of students reflect each student’s true merit. They respect the confidential nature of the relationship between professor and student. They avoid any exploitation, harassment, or discriminatory treatment of students. They acknowledge significant academic and scholarly assistance from them. They protect their academic freedom.” (From 1966 AAUP statement, revised 1987)

The integrity of the faculty-student relationship is the foundation of the University’s educational mission. This relationship vests considerable trust in the faculty member, who, in turn, bears authority and accountability as mentor, educator, and evaluator. The unequal institutional power inherent in this relationship heightens the vulnerability of the student and the potential for coercion. The pedagogical relationship between faculty member and student must be protected from influences or activities that can interfere with learning consistent with the goals and ideals of the University. Whenever a faculty member is responsible for academic supervision of a student, a personal relationship between them of a romantic or sexual nature, even if consensual, is inappropriate. Any such relationship jeopardizes the integrity of the educational process.

In this section, the term student refers to all individuals under the academic supervision of faculty.

Types of Unacceptable Conduct

Failure to meet the responsibilities of instruction, including (1) arbitrary denial of access to instruction; (2) significant intrusion of material unrelated to the course; (3) significant failure to adhere, without legitimate reason, to the rules of the faculty in the conduct of courses, to meet class, to keep office hours, or to hold examinations as scheduled; (4) evaluation of student work by criteria not directly reflective of course performance; (5) undue and unexcused delay in evaluating student work.

Discrimination, including harassment, against a student on political grounds or for reasons of race, religion, sex, sexual orientation, gender, gender expression, gender identity, ethnic origin, national origin, ancestry, marital status, pregnancy, physical or mental disability, medical condition, genetic information, status as a covered veteran or, within the limits imposed by law or University regulations, because of age or citizenship or for other arbitrary or personal reasons.
Sexual violence and sexual harassment, as defined by University policy, of a student. 
Violation of University policy, including the pertinent guidelines, applying to nondiscrimination against students on the basis of disability. 
Use of the position or powers of a faculty member to coerce the judgment or conscience of a student or to cause harm to a student for arbitrary or personal reasons. 
Participating in or deliberately abetting disruption, interference, or intimidation in the classroom. 
Entering into a romantic or sexual relationship with any student for whom a faculty member has, or should reasonably expect to have in the future, academic responsibility (instructional, evaluative, or supervisory). 
Exercising academic responsibility (instructional, evaluative, or supervisory) for any student with whom a faculty member has a romantic or sexual relationship.

Charges of Violation

If a student has reason to believe that a faculty member has violated the Faculty Code of Conduct and that formal discipline may be warranted, the alleged violator should be reported to the chair of the department and to the dean of the division or school with a request that a charge be filed with the Academic Senate Charges Committee. If the dean, in consultation with the vice chancellor of academic personnel, determines that there are not sufficient grounds for the administration to file a charge, the student may, after discussing the matter with the Office of Ombuds Services and a member of the Academic Senate Grievance Advisory Committee, file such a charge in person if the student continues to feel it is warranted.

Residence for Tuition Purposes

Students who have not been living in California with intent to make it their permanent home for more than one year immediately before the residence determination date for each term in which they propose to attend the University must pay nonresident supplemental tuition in addition to all other fees. The residence determination date is the day instruction begins at the last of the University of California campuses to open for the quarter, and for schools on the semester system, the day instruction begins for the semester.

Who Is a Resident?

Persons who are adult students (at least 18 years of age) may establish residence for tuition purposes in California if they are (1) a U.S. citizen, (2) a permanent resident or other immigrant, or (3) a nonimmigrant who is not precluded from establishing a domicile in the U.S. Nonimmigrants who are not precluded from establishing a domicile in the U.S. include those who hold valid visas of the following types: A, E, G, H-1, H-4, Humanitarian Parole, I, K, L, N-8, N-9, NATO 1-7, O-1, P-1, P-2, P-3, R, T, U, or V.

To establish residence in California, students and/or parents must be physically present in California for more than one year, and they must have come here with the intent to make California their home as opposed to coming to this state to go to school. Physical presence within the state solely for educational purposes does not constitute the establishment of California residence, regardless of the length of stay. Students and/or parents must demonstrate their intention to make California their home by severing any and all residential ties with their former state of residence and establishing those ties with California. If these steps are delayed, the one-year durational period is extended until students and/or parents have demonstrated both presence and intent for one full year. If their parents are not California residents (over one year of physical presence with intent to remain in the state), students are required to be financially independent in order to be a resident for tuition purposes. Their residence cannot be derived from their spouse, registered domestic partner, or their parents.

Requirements for Financial Independence

A student is considered financially independent if one or more of the following apply: they (1) are at least 24 years of age by December 31 of the academic year for which they are requesting residence classification; (2) they are a veteran of the U.S. Armed Forces; (3) they are serving in the U.S. Armed Forces; (4) they are a ward of the court or both parents are deceased; (5) they have legal dependents other than a spouse; (6) they are married or have a registered domestic partner as of the residence determination date; (7) they have been determined to be an unaccompanied youth who was homeless pursuant to federal financial aid rules; (8) they receive an independent student status determined by UC campus financial aid office; (9) they are a graduate or professional student; or (10) they are a single undergraduate student and they were not claimed as an income tax deduction by their parents or any other individual for the one tax year immediately preceding the term for which they are requesting resident classification, and they can demonstrate self-sufficiency for one full year prior to the residence determination date of the term they propose to attend the University through their own resources (such as employment, commercial loans, financial aid, and savings that can be officially documented). The one year required for self-support might not coincide with the one tax year during which the student must not have been claimed by their parents.

Establishing Intent to Become a California Resident

Indications of students’ intent to make California their permanent residence can include the following: (1) registering to vote and voting in California elections, (2) designating California as their permanent address on all school and employment records, including military records if they are in the U.S. Armed Forces, (3) obtaining a California Driver License or, if they do not drive, a California Identification Card, (4) obtaining California vehicle registration, (5) paying California income taxes as a resident, including taxes on income earned outside California from the date they establish residence, (6) establishing a California residence in which they keep their personal belongings, and (7) licensing for professional practice in California.

The absence of these indicia in other states during any period for which students claim residence can also serve as an indication of their intent. Documentary evidence is required, and all relevant indications are considered in determining the classification. Intent is questioned if students return to their prior state of residence when the University is not in session.

Temporary Absences

If persons are nonresident students who are in the process of establishing a residence for tuition purposes and they return to their former home during noninstructional periods, their presence in the state is presumed to be solely for educational purposes and only convincing evidence to the contrary rebuts this presumption. Students who are in the state solely for educational purposes are not classified as residents for tuition purposes regardless of the length of their stay.

If persons are students who have been classified as residents for tuition purposes and they leave the state temporarily, their absence could result in the loss of their California residence. The burden is on students (or their parents if they are minors) to verify that they did nothing inconsistent with their claim of a continuing California residence during their absence. Steps that students (or their parents) should take to retain a California residence include the following:

1. Maintain a domicile in California
2. Continue to use a California permanent address in all records—educational, employment, military, etc.
3. Continue to satisfy California Resident tax obligations. If a student claims California residence, they are liable for payment of income taxes on their total income from the date they establish their residence in the state, including income earned in another state or country
4. Retain California voter registration and vote by absentee ballot
5. Maintain a California driver license and vehicle registration. If it is necessary to change the driver license or vehicle registration, the student must change them back within the time prescribed by law

General Rules Applying to Minors

If students are unmarried minors (under age 18), the residence of the parent with whom they live is considered to be their residence. If they have a parent living, they cannot change their residence by their own act, by the appointment of a legal guardian, or by the relinquishment of their parent’s right of control. If students live with neither parent, their residence is that of the parent with whom they last lived. Unless they are minor aliens present in the U.S. under the terms of a nonimmigrant visa that precludes them from establishing a domicile in the U.S., students may establish their own residence when both their parents are deceased and a legal guardian has not been appointed. If they derive California residence from a parent, that parent must
satisfy the one-year durational residence requirement.

**Specific Rules Applying to Minors**

**Divorced or Separated Parents**

Minor U.S. citizens or eligible aliens may be able to derive California resident status from a California resident parent, if they move to California to live with that parent before their 18th birthday. If they then reside with their California parent after their 18th birthday, they are treated like any other adult student coming to California to establish residence.

**Parent of Minor Moves from California**

Students may be entitled to resident status if they are minor U.S. citizens or eligible aliens whose parent(s) is a resident of California who has left the state within one year of the residence determination date if (1) they remained in California after their parent(s) departed, (2) they enroll in a California public post-secondary institution within one year of their parent(s) departure, and (3) once enrolled, they maintain continuous attendance in that institution. Financial independence is not required in this case.

**Two-Year Care and Control**

A minor or 18-year-old student may be entitled to resident classification if, immediately prior to enrolling in a postsecondary institution, they have been living with and been under the continuous direct care and control of an adult or adults other than a parent for a period of no less than two years. The adult or adults having control must have been residents of California during the one year immediately prior to the residence determination date. The classification continues until students have attained the age of 19 and have lived in the state the minimum time necessary to become a resident, so long as continuous full-time attendance is maintained at a public postsecondary institution.

**Self Support**

If students are U.S. citizens or eligible aliens and are minors who can prove that they lived in California for the entire year immediately before the residence determination date, that they have been self-supporting for that year, and that they intend to make California their permanent home, they may be eligible for resident status.

**Exemptions from Nonresident Supplemental Tuition**

**Member of the U.S. Armed Forces**

Some members of the U.S. Armed Forces may qualify for an exemption from nonresident supplemental tuition based on the federal Higher Education Opportunity Act of 2008. Under this Act, undergraduate and graduate students who are the spouse or dependent child of a member of the U.S. Armed Forces on active duty for a period of more than 30 days and whose domicile or permanent duty station is in California, are entitled to an exemption from nonresident supplemental tuition. Special circumstances: Members of the U.S. Armed Forces stationed in California are entitled to resident classification unless their assignment to California is for the purpose of attending a state-supported institution of higher education. They must provide the campus residence deputy with a statement from their commanding officer or personnel officer stating that their assignment to active duty in California is not for educational purposes. The letter must include the dates of their assignment to the state. Students discharged from military service after having been stationed in California on active duty for at least 366 days are entitled to resident classification for the minimum time necessary to establish residence (366 days).

**Spouse or Other Dependents of Military Personnel**

Some dependents of members of the U.S. Armed Forces may qualify for an exemption from nonresident supplemental tuition based on the federal Higher Education Opportunity Act of 2008. Some dependents are entitled to resident classification if they are a spouse, natural or adopted child, or stepchild who is a dependent of a member of the U.S. Armed Forces stationed in California. If they are enrolled in an educational institution and the U.S. Armed Forces member is transferred on military orders to a place outside California where he or she continues to serve in those forces, or the U.S. Armed Forces member retires from active duty immediately after having served in California on active duty, they may retain resident status as long as they remain continuously enrolled at that institution.

**Graduate of a California High School**

Under California law AB 540, certain nonresident students are exempt from paying nonresident supplemental tuition. To be eligible, students must have attended three full-time years at a California high school (9th grade included), adult school, and community college (maximum of two years), or attained credits/units earned in California from a California high school equivalent to three or more years of full-time high school coursework and attended a combination of elementary, middle, and/or high school (K-12) in California for a total of three or more years; and graduated from a California high school (or attained the equivalent, such as a High School Equivalency Certificate issued by the California state GED Office or a Certificate of Proficiency resulting from the California High School Proficiency Examination), attained an associate’s degree from a California community college, or fulfilled minimum transfer requirements from a California community college to a UC campus. See **AB 540 nonresident tuition exemption**. Nonimmigrant alien students are not eligible for the exemption.

**Child, Spouse, or Registered Domestic Partner of a UC Employee**

Students may be entitled to resident classification if they are a dependent child, spouse, or registered domestic partner of a full-time University employee whose assignment is outside California. Their parent’s, spouse’s, or registered domestic partner’s employment status with the University must be ascertained each term.

**Dependent Child of a California Resident**

If students have not been an adult resident of California for more than one year and are the natural or adopted dependent child of a California resident who has been a resident for more than one year immediately prior to the residence determination date, they may be entitled to a resident classification until they have resided in California the minimum time necessary to become a resident, so long as continuous attendance is maintained at an institution.

**Native American Graduate of a Bureau of Indian Affairs High School**

Students who are graduates of a California high school operated by the federal Bureau of Indian Affairs may be entitled to a resident classification.

**Employee of a California Public School District**

Students holding a valid credential authorizing service in the public schools of the State of California who are employed by a school district in a full-time certificate position may be entitled to a resident classification.

**Student Athlete in Training at the U.S. Olympic Training Center, Chula Vista**

Any amateur student athlete in training at the U.S. Olympic Training Center in Chula Vista may be entitled to a resident classification for one year. Such a student may thereafter be eligible to receive a resident classification if the student demonstrated timely satisfaction of residence requirements. A U.S.
Olympic Training Center official must provide the student with a letter confirming eligibility.

Dependent or Ward of the State of California Child Welfare System
Notwithstanding any other provisions, students who reside in California and who are currently dependents or wards of the state through the California child welfare system, or were served by the California child welfare system shall be entitled to a resident classification as long as they remain continuously enrolled.

Child, Spouse, or Registered Domestic Partner of Deceased Public Law Enforcement or Fire Suppression Employee
Students may be entitled to a waiver of nonresident supplemental tuition if they are the child, spouse, or registered domestic partner of a deceased public law enforcement or fire suppression employee who was a California resident at the time of his or her death, and who was killed in the course of fire suppression or law enforcement duties.

Congressional Medal of Honor Recipients, and Their Children
Students who are recipients of the Congressional Medal of Honor or who are the children of a recipient may be exempt from nonresident supplemental tuition.

Residence Classification Change
Students may obtain a Petition for Residence Classification from the Registrar website to request a change of classification from nonresident to resident status. All changes of status must be initiated in advance of the petition filing deadline.

Time Limit on Submitting Documentation
If additional documentation is required for residence classification but is not readily accessible, students have until the end of the applicable term to submit it.

Incorrect Classification
Students who were incorrectly classified as residents are subject to reclassification as nonresidents and to payment of all nonresident tuition and fees not paid. If students concealed information or furnished false information and were classified incorrectly as a result, they are also subject to University discipline.

Student Status Change
Resident students who become nonresidents must immediately notify the residence deputy of their change in status.

Inquiries and Appeals
Inquiries regarding residence requirements, determination, and/or recognized exceptions should be directed to the Residence Deputy, UCLA Registrar’s Office, 1113 Murphy Hall, Box 951429, Los Angeles, CA 90095-1429, 310-825-3447.

Students are cautioned that this summary is not a complete explanation of the law regarding residence. Note that changes may be made in the residence requirements between the publication of this statement and the relevant residence determination date.

Grounds for Appeal
Students may appeal a campus nonresident determination to the UC Office of the General Counsel on the grounds and within the deadline specified.

1. The decision to classify a student as a nonresident for tuition purposes was based on (a) a significant error of fact; (b) a significant procedural error, or (c) an incorrect application of policy that, if corrected, would require that the student be reclassified as a resident.

2. Significant new information became available after the date of the campus decision classifying the student as a nonresident; despite the exercise of reasonable diligence (care and attention), the information was not previously known or available to the student; and based on the new information, classification as a nonresident is incorrect.

No appeals based solely on disagreement with the campus decision are acceptable.

Appeal Deadline
The UC Office of the General Counsel must receive the appeal from the student within 30 days of the date of the campus decision notifying the student of the nonresident classification. Send the completed Application to Appeal and a copy of the nonresident decision by e-mail to the Residency Analyst; fax to 510-987-9757; or mail to Residency Analyst, UC Office of the General Counsel, 1111 Franklin Street, 8th Floor, Oakland, CA 94607-5200. No other University personnel are authorized to supply information relative to residence requirements for tuition purposes.

Privacy Notice
All information requested on the Statement of Legal Residence (SLR) form is required for determining whether or not students are legal residents of California for tuition purposes. Registration cannot be processed without this information. The Registrar’s Office on campus maintains the requested information. University of California policies governing residence for tuition purposes are established by the Regents pursuant to and implemented by regulations established by the president, in consultation with the general counsel (Regents Policy 3105). Students have the right to inspect University records containing the residence information requested on the SLR form.

Financial Aid Standards for Satisfactory Academic Progress
UCLA Financial Aid and Scholarships establishes standards for satisfactory academic progress to measure students’ progress toward degree completion using both qualitative and quantitative methods in accordance with federal regulations. To be eligible for financial aid, students must meet or exceed these standards. Failure to maintain these standards may result in suspension of financial aid eligibility. The standards are as strict as, or more strict than, the UCLA standards for a student enrolled in the same educational program who is not receiving Title IV assistance. See the Standards for Satisfactory Academic Progress Guide.

Professional Schools
Students attending the schools of Dentistry, Law, Management, Medicine, and UCLA Extension are covered by criteria established by the respective school.

Qualitative Standard
Undergraduate students must maintain a cumulative 2.0 grade-point average (GPA); graduate students must maintain a cumulative 3.0 GPA.

Quantitative Standard
Students must complete a minimum of 67 percent of cumulative coursework attempted.

Maximum Timeframe
Units attempted or total enrolled terms may not exceed 150 percent of the published length of students’ programs.

Change of Academic Major/Pursuit of Double Major or Minor
Students who have a change of academic major, or pursue a double major or minor, do not have additional financial aid eligibility beyond the maximum timeframe established in this policy.

Successful Completion of Units
To successfully complete units, students must receive a grade of A, B, C, D, or P (S for graduate students) in each course. Grades of F, I, NP (U for graduate students), NR (No Report), and DR (Deferred Report) do not count as successful completion of coursework attempted.

The standards for satisfactory academic progress apply to all coursework attempted, including coursework for which students did not receive financial aid.

Cancellation
Cancellation of registration on or before the first day of classes does not count as units attempted.

English as a Second Language and Summer Sessions Coursework
English as a Second Language (ESL) and Summer Sessions coursework counts as units attempted, and toward the cumulative grade-point average.
Remedial Coursework
Remedial coursework counts as units attempted, but does not count toward the cumulative grade-point average.

Repeat Coursework
Repeated courses and grade-point average are treated in accordance with the academic policy as outlined in this catalog. If the Registrar’s Office counts repeat coursework as attempted/completed, this counts equally for academic progress standards. Financial Aid and Scholarships determines if students are eligible for aid for repeat coursework.

Transfer Coursework
Coursework accepted for transfer credit counts as both units attempted and completed, and has no affect on grade-point average unless the coursework is transferred from another UC campus.

Withdrawal
Withdrawal after the first day of classes during a term count as units attempted, unless students do not attend any classes for the given term and receive a 100 percent refund of all fees.

Evaluation
Academic progress is evaluated annually after winter quarter grades are available. For students on probation and for students who are required to follow an academic plan (see below), academic progress is evaluated each term.

Suspension
Students who fail to meet the standards for satisfactory academic progress are placed on suspension and are no longer eligible to receive financial aid. Suspended students are notified through their MyUCLA account.

Appeal Process
Students who have their financial aid suspended may submit a written appeal using the Satisfactory Academic Progress Appeal form. When filing an appeal, they must provide a full explanation along with documentation, verifying the circumstances that led to their inability to meet the standards for satisfactory academic progress. Before filing an appeal, students should seek assistance from an academic adviser to explore ways to eliminate deficiencies and to establish a realistic plan toward graduation. Refer to the appeal instruction packet for specific examples of valid reasons for an appeal.

Appeal Deadline
Appeals must be submitted to Financial Aid and Scholarships prior to the last day of the term for which students are appealing to have aid reinstated. Appeals are not considered retroactively. Refer to the appeal instruction packet for priority deadlines.

Denied Appeals
If the appeal is denied, students may file a secondary appeal and submit additional information that may help explain the circumstances by which they were not able to maintain the standards for satisfactory academic progress. They are notified of the decision of the secondary appeal in writing; the decision is final.

Probation
Students who have an appeal approved are placed on probation and their academic progress monitored on a quarterly basis to ensure that they meet the conditions of their academic plan.

Reinstatement
Students who have had their aid eligibility suspended for failing to maintain the standards for satisfactory academic progress, or who have a denied satisfactory academic progress appeal, may regain financial aid eligibility by becoming compliant with the qualitative and quantitative components of the academic progress standards. Students who exceed the maximum timeframe cannot regain eligibility through the reinstatement process.

Academic Plans
If students are required to submit an academic plan as a condition of their approved appeal, their financial aid cannot be disbursed until Financial Aid and Scholarships confirms that they are adhering to their academic plan. Students on an academic plan are evaluated each term. Their ability to adhere to the units and courses specified in their academic plan is closely monitored. Failure to adhere to their academic plan causes delays in students’ aid being disbursed, and may result in suspension of their financial aid eligibility.

Grading Regulations
Assigning a Grade
The instructor in charge of a course is responsible for determining the grade of each student in the course. The standards for evaluating student performance are based on the course description as approved by the appropriate course committee.

The final grade in the course is based on the instructor’s evaluation of the student’s achievement in the course. When an examination or other work submitted by a student, the student is suspected of having engaged in plagiarism or otherwise having cheated, the suspected infraction is to be reported to the appropriate administrative officer of the University for consideration of disciplinary proceedings against the student. Until such proceedings, if any, have been completed, the Deferred Report (DR) grade is assigned for that course. If in such disciplinary proceedings it is determined that the student did engage in plagiarism or otherwise cheat, the administrative officer, in addition to imposing discipline, reports the nature of the plagiarism or cheating to the instructor of the course involved. In light of that report, the instructor may replace the DR grade with a final grade that reflects an evaluation of that which may fairly be designated as the student’s own achievement in the course as distinguished from any achievement that resulted from plagiarism or cheating.

Grade Complaints
A grade may be appealed, on any reasonable grounds, to the instructor, the chair of the department, and the dean of the division or school.

If the student believes that the instructor has violated the Faculty Code of Conduct by assigning the grade on any basis other than academic grounds, the matter should first be taken up with the instructor. If the matter is not resolved, the student may go for counsel to the Office of Ombuds Services, or may follow the procedures for the formal filing of charges. If a charge is sustained by the Academic Senate committees on Charges and on Privilege and Tenure, an ad hoc committee is appointed within two weeks to review the disputed grade, and any warranted change is made within four weeks.

Correction of Grades
All grades, except DR, I, and IP, are final when filed by the instructor in the end-of-term course report. However, the Registrar’s Office is authorized to change a final grade (1) on written request of an instructor, provided that a clerical or procedural error is the reason for the change; or (2) on written request of the chair of the UCLA Academic Senate, in cases where it has been determined by the Committee on Privilege and Tenure that an instructor has assigned a grade on any basis other than academic grounds. No change of grade may be made on the basis of re-examination or, with the exception of I and IP grades, the completion of additional work. Any grade change request made more than one year after the original filing must be validated for authenticity of the instructor’s signature by the department chair. Any grade change request made by an instructor who has left UCLA must be countersigned by the department chair. No grade change may be made once a student has graduated. All grade changes are recorded on the transcript.

Alternate Examination Dates Policy
In compliance with Section 92640(a) of the California Education Code, UCLA must accommodate requests for alternate examination dates for any test or examination at a time when that activity would not violate a student’s religious creed. This requirement does not apply in the event that administering the test or examination at an alternate time would impose an undue hardship that could not reasonably be avoided. Accommodation for alternate examination dates is worked out directly and on an individual basis between the student and the faculty member involved.

In general, students should make such requests of the instructor during the first two weeks of any given academic term, or as soon as possible after a particular examination date is announced by the instructor. Students unable to reach a satisfactory arrangement with their instructor should contact the Office of Ombuds Services, 105 Strathmore Building; or the Office of Student Conduct, 1206 Murphy Hall, for assistance.
Instructors who have questions or who wish to verify the nature of the religious event or practice involved should contact the Office of Ombuds Services or the Office of Student Conduct for assistance.

Undergraduate Final Examinations

No student shall be excused from assigned final examinations, except as provided above in the policy on alternate examination dates and as provided in the following three paragraphs.

The instructor in charge of an undergraduate course is responsible for assigning the final grade in the course. The final grade shall reflect the student’s achievement in the course and shall be based on adequate evaluation of that achievement. The instructor’s method of evaluation must be announced at the beginning of the course. The methods may include a final written examination, a term paper, a final oral examination, a take-home examination, or other evaluation device. Evaluation methods must be of reasonable duration and difficulty and must be in accord with applicable departmental policies. Final written examinations may not exceed three hours’ duration, and are given only at the times and places established and published by the department chair and the Registrar’s Office.

At the end of the term in which a student is expected to graduate, the major department may examine the student in the field of the major and, with the approval of the Undergraduate Council, assign a credit value to such general examination. The department may also excuse the student from final examinations in courses offered by the department during that term.

An instructor may release to individual students their original final examinations (or copies). This may be done by any method that ensures the students’ right to privacy. Otherwise, the instructor shall retain final examination materials, or a copy thereof, until the end of the next succeeding regular term of instruction, during which period students shall have access to their examinations.

Disclosure of Student Records

Pursuant to the Federal Family Educational Rights and Privacy Act (FERPA), the California Information Practices Act, and the University of California Policies Applying to the Disclosure of Information from Student Records, students at UCLA have the right to (1) inspect and review records pertaining to themselves in their capacity as students, except as the right may be waived or qualified under federal and state laws and University policies; (2) have withheld from disclosure, absent their prior written consent for release, personally identifiable information from their student records, except as provided by federal and state laws and University policies; (3) inspect records maintained by UCLA of disclosures of personally identifiable information from their student records; (4) seek correction of their student records through a request to amend the records or, if such request is denied, through a hearing; and (5) file complaints with the U.S. Department of Education regarding alleged violations of the rights accorded them by FERPA.

UCLA, in accordance with federal and state laws and University policies, has designated the following categories of personally identifiable information as public information that UCLA may release and publish without the student’s prior consent: name, e-mail address, telephone numbers, major field of study, dates of attendance, number of course units in which enrolled, degrees and honors received, the most recent previous educational institution attended, participation in officially recognized activities (including intercollegiate athletics), and the name, weight, and height of participants on intercollegiate athletic teams.

As a matter of practice, UCLA does not publish student telephone numbers in the campus online directory unless released by the student. The term public information in this policy is synonymous with the term directory information in FERPA.

Students who do not wish certain items (i.e., name, e-mail address, telephone numbers, major field of study, dates of attendance, number of course units in which enrolled, and degrees and honors received) of this public information released and published may so indicate through MyUCLA. To restrict the release and publication of additional items in the category of public information, complete the UCLA FERPA Restriction Request form available from the Registrar’s Office, 1113 Murphy Hall.

Student records that are the subject of federal and state laws and University policies may be maintained in a variety of offices, including the Registrar’s Office, Office of Student Conduct, Career Center, Graduate Division, External Affairs Department, and offices of a student’s College or school and major department. Students are referred to the online UCLA Campus Directory, which lists all the offices that may maintain student records, together with each office campus address and telephone number.

Students have the right to inspect their student records in any such office, subject to the terms of federal and state laws and University policies. Inspection of student records maintained by the Registrar’s Office is by appointment only and must be arranged three working days in advance. Call 310-825-1091, option 6, or inquire at the Registrar’s Office, 1113 Murphy Hall.

Copies of applicable federal and state laws and University policies may be requested from the Information Practices office. For copies, send e-mail or call 310-794-8741. Information concerning students’ hearing rights may be obtained from the office of the Director of Student Conduct, 1206 Murphy Hall.

Policy on Maintaining Student Work

During their academic careers at UCLA, undergraduate students create evidence of their learning, which includes but is not limited to course projects, papers, and assignments; student responses on examinations; and documentation of student performance and creative expression. Regularly, and on an ongoing basis, faculty may choose to store a sample of this evidence in digital archives maintained by the Division of Undergraduate Education. All information stored, created, or derived by this archival function is governed by the faculty and the leadership of UCLA academic departments and interdepartmental degree programs. The purpose of maintaining this archive is to make this evidence available exclusively for departmental research studies conducted to inform academic program improvement and to ensure institutional effectiveness.

In the event an academic department or interdepartmental program chooses to conduct a program improvement research study, it may opt to use a sample of evidence that it has chosen to archive, and it may grant permission for the Undergraduate Education Division, the Graduate Division, or other collaborators from the UCLA academic community to evaluate and analyze the student learning. The evidence of student learning is stored anonymously, with no identifiers of individual students attached to the records in the archive. Assessment of student performance in program improvement research studies is not connected with any academic record of the individual student’s performance. Assessment reports may be created for internal departmental improvement purposes only, and they may include an aggregation of student characteristics associated with learning achievement. Evidence of student learning is purged from the digital archive after being stored for a period of 12 years, to ensure it can be made available for analysis of departments and programs in support of the Academic Senate program review requirements. Students can designate that materials they created, which have been sampled by the faculty, be excluded from the Undergraduate Education Division digital archive by expressing their wishes by e-mail.

Campus Security Information

UCLA Police Department

The UCLA Police Department (UCPD), 310-825-1491, is located at 601 Westwood Plaza. The sworn UCPD officers are empowered by the state of California with the authority to enforce all state and local laws. UCPD officers patrol the campus 24 hours a day, 365 days a year. They enforce all applicable local, state, and federal laws; arrest violators; investigate and suppress crime; and provide a full range of police services and community safety programs.

The department is linked by computer to city, state, and federal criminal justice agencies that provide access to information concerning criminal records, wanted persons, stolen property, and vehicle identification. The detective unit handles criminal investigations, and detectives conduct interviews, arrest violators, execute search warrants, and file cases with the Los Angeles District and City Attorney offices.

UCPD police officers have primary jurisdiction over the UCLA campus, Reagan UCLA Medical Center, Center for the Health Sciences, Santa Monica-UCLA Medical Center, and University Apartments South. The city of Los Angeles Police Department does not routinely handle calls for service on campus or on most UCLA properties.

Incident Reporting

All requests for police service should be made to UCPD. All crime occurring on campus, the Center
for the Health Sciences, and other UCLA properties should be reported immediately to UCPD to ensure appropriate action is taken. Crimes occurring on campus should be reported immediately to the local law enforcement agency. UCPD does take reports from students, faculty, and staff for incidents occurring in the Westwood area.

Police, fire, or medical emergencies can be reported by calling 911 from any telephone on campus. All landline telephones (UCLA, private, public) located on UCLA grounds are tied into the 911 emergency system. Emergencies can also be reported by using the blue-hooded or yellow Emergency Reporting Telephones located throughout the campus.

Calls made to 911 from a cell phone may not go directly to UCPD depending on the tower used by the cell phone at the time of the call. Callers should advise the dispatcher and ask if they are speaking with UCPD. If not, and time permits, callers may ask to be transferred to UCPD 911.

Nonemergency calls for service can be made by contacting the department at 310-825-1491. Campus community members are encouraged to program the department number into their cell phones and report on suspicious circumstances.

Crime Statistics and Reports

As required by the Jeanne Clery Disclosure of Campus Security Policy and Campus Crime Statistics Act and consistent with the amendments of the Violence against Women Reauthorization Act of 2014, UCLA prepares an annual report describing campus security policy and information concerning alcohol and drug use, crime prevention, crime reporting, and related matters. It also includes three years of crime statistics. For a printed copy, call 310-825-1491.

Community Service Officers

UCPD employs approximately 80 student community service officers (CSO) who are the additional eyes and ears (trained observers) of the department and act as noninterventional visual deterrents to crime. CSOs wear high-visibility uniforms and carry two-way police radios. They are dispatched by the department communications center and provide a direct link to police, fire, and medical aid. CSOs provide security service to a number of campus buildings, including residence halls and libraries. They are most well-known for CSO Escorts and UCLA Safe Ride (formerly Evening Van Service). CSO escorts operate every day of the year from dusk to 1 a.m. (2 a.m. on Thursdays during academic quarters). Individuals requesting the service call the Communications Center at 310-794-WALK; a CSO is then dispatched to walk them safely to their destination. The service is available to UCLA students, staff, faculty, and visitors; and operates on campus and in the nearby residential areas. The UCLA Safe Ride service offers a safe and convenient mode of transportation around campus at night (Monday through Thursday from 7 p.m. to 12 a.m. during academic terms), and is accessible to people with disabilities. The UCLA Safe Ride web application is available on Google Play and the Apple App Store; a UCLA login is required to access the app.

Crime Prevention

An involved community is one of the best defenses against crime. Therefore, the department is committed to a community policing philosophy and supports a proactive Crime Prevention Unit that works closely with community members to make UCLA a safer place to work, live, and learn. The unit gives presentations on vehicle and residential security, personal safety, office and equipment security, sexual assault prevention, and active shooter situations. Other programs are developed to meet the special needs of the campus community. Brochures and literature on crime prevention and personal safety are available online.

Counseling and Psychological Services (CAPS) and the Crime Prevention Unit offer presentations on sexual assault issues. Topics include acquaintance rape education and prevention, personal safety and prevention techniques, recovery from sexual assault, clear communications, and the continuum of violence and rape in society. The educational programs, tailored to meet the needs of individual audiences, include films, discussion groups, lectures, role-plays, and communication exercises. CAPS reaches students through the residence halls, sororities, fraternities, athletic teams, student clubs, and various student functions. Services include crisis intervention and advocacy for victims of sexual assault; short-term counseling and referrals for survivors, their families, and friends; support groups for rape survivors; and self-defense classes and a lending library. CAPS works closely with the student housing offices and the police department to increase campus safety.

Several programs have been designed to increase the level of crime awareness and campus safety at UCLA. Incidents of criminal activity that pose a potential threat to the campus are brought to the attention of the community through campus crime alert bulletins. Additionally, those interested in receiving public safety bulletins and news briefs can sign up for the public safety listserv.

Emergency Medical Services

UCPD provides emergency medical response for the campus community through the Emergency Medical Services (EMS) unit. The EMS unit is staffed by full-time UCLA students certified as emergency medical technicians (EMTs). Emergency medical services are available 24 hours a day, 365 days of the year. As in all emergencies, call 911 for this service.

Alcohol and Substance Abuse Education

Students with alcohol or substance abuse problems create safety and health risks for themselves and others. Such abuses can result in a wide range of emotional and behavioral problems. Therefore, UCLA makes available to every student a variety of alcohol and substance abuse awareness programs that are designed to discourage the use of illicit substances and to educate students on the merits of legal and responsible alcohol consumption. Counseling and Psychological Services (310-825-0768) provides counseling and referral assistance to students who are troubled by alcohol or substance abuse problems. The service is completely confidential and free to regularly enrolled students. All information and counseling is treated in accordance with UCLA and UC policies and state and federal laws. Any decision to seek assistance is not used in connection with any academic determination or as a basis for disciplinary proceedings.

Alcohol and Substance Policies

UCLA is designated as a drug-free environment, and only under certain conditions is alcohol consumption permitted (none is permitted at athletic events). In keeping with its educational mission, the University assumes the responsibility to better inform the UCLA community about alcohol and substance abuse.

The sale, manufacture, distribution, or possession of any controlled substance without a prescription is illegal under both state and federal laws. Such laws are strictly enforced by UCPD police officers. Student violators are subject to University disciplinary action, criminal prosecution, fine, and imprisonment. Refer to the UCLA policies on substance abuse for further information.

The sale, consumption, and distribution of alcohol on the UCLA campus is restricted by the UCLA alcohol policy and California state law. Organizations or groups violating alcohol or substance policies or laws may be subject to sanctions by the University.

Residential Housing

UCLA is the size of a small city, and provides residential housing to approximately 16,000 students. Housing facilities range from apartments designed for students with children to multi-student apartment complexes to high-rise student residence halls. UCPD and student housing staff work in tandem to create a safe and comfortable living and learning environment.

Campuswide security and safety programs for residents are held throughout the year to increase awareness of potential crime and improve campus safety. To keep residents immediately informed of major crime or threats to the campus, crime alert bulletins are posted in residential areas by the housing staff. However, residents must take an active role to ensure their own safety by exercising simple commonsense crime prevention techniques. Because the campus is open 24 hours a day, visitation to residence halls and apartments is not restricted. All residence halls have 24-hour access control on entrance doors, and during the evening hours access control monitors are stationed at each entrance. UCPD police officers and CSOs are also signed to the residence halls.

UCLA-affiliated organizations that maintain off-campus facilities are under the shared jurisdiction of their local police department and the UCLA Police Department, which provides assistance to students, faculty, and staff; and/or referrals to neighboring police departments.

Safety Tips

The nature of the studies and research done at UCLA requires many campus buildings to be open 24 hours a day. Because the campus is so large and adjacent to the greater Los Angeles community, in-
individuals with criminal intent are able to access UCLA grounds.

Regardless of the time of day or night, and no matter where persons are on campus, they should be alert, aware of their surroundings, and exercise common-sense safety precautions. Anyone parking on campus should remember to lock their vehicle and consider investing in a locking device and/or alarm. Use CSO escorts when walking at night. Keep room and apartment doors locked at all times. Most important, anyone needing assistance should not hesitate to contact the department.

Take advantage of the safety services provided by UCLA and UCPD. See the Campus Safety Tips web page for more information.

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**APPENDIX B: UNIVERSITY ADMINISTRATIVE OFFICERS**

Terms of Regents appointed by the Governor expire March 1 of the year in parentheses. The student Regent and alumni Regents serve a one-year term beginning July 1 and ending June 30 of the year listed.

**Regents Ex Officio**

<table>
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<tr>
<th>Position</th>
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<tbody>
<tr>
<td>Governor of California</td>
<td>Gavin C. Newsom</td>
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<tr>
<td>Lieutenant Governor of California</td>
<td>Eleni T. Kounalakis</td>
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<tr>
<td>Speaker of the Assembly</td>
<td>Anthony Rendon</td>
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<tr>
<td>State Superintendent of Public Instruction</td>
<td>Tony K. Thurmond</td>
</tr>
<tr>
<td>President of the Alumni Associations of the University of California</td>
<td>William Um (2020)</td>
</tr>
<tr>
<td>Chief Investment Officer</td>
<td>Jagdeep Singh Bachher</td>
</tr>
<tr>
<td>General Counsel</td>
<td>Charles F. Robinson</td>
</tr>
<tr>
<td>Secretary and Chief of Staff</td>
<td>Anne Shaw</td>
</tr>
<tr>
<td>Senior Vice President—Chief Compliance and Audit Officer</td>
<td>Alexander Bustamante</td>
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**Office of the President**

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<th>Position</th>
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<tbody>
<tr>
<td>President of the University</td>
<td>Michael V. Drake</td>
</tr>
<tr>
<td>Provost and Executive Vice President—Academic Affairs</td>
<td>Michael Brown</td>
</tr>
<tr>
<td>Executive Vice President—Chief Financial Officer</td>
<td>Paul Jenny, Interim</td>
</tr>
<tr>
<td>Executive Vice President—Chief Operating Officer and Chief of Staff to the President</td>
<td>Rachael Nava</td>
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<tr>
<td>Executive Vice President—UC Health Carie Byington</td>
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<tr>
<td>Senior Vice President—Ethics, Compliance, and Audit Services</td>
<td>Alexander Bustamante</td>
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<tr>
<td>Senior Vice President—External Relations and Communications</td>
<td>Claire Holmes</td>
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<tr>
<td>Vice President—Agriculture and Natural Resources</td>
<td>Glenda Humiston</td>
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<tr>
<td>Vice President—General Counsel</td>
<td>Charles F. Robinson</td>
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<tr>
<td>Vice President—Human Resources</td>
<td>Cheryl Lloyd, Interim</td>
</tr>
<tr>
<td>Vice President—Information Technology Services and Chief Information Officer</td>
<td>Mark Cianca, Interim</td>
</tr>
<tr>
<td>Vice President—Institutional Research and Academic Planning</td>
<td>Pamela Brown</td>
</tr>
<tr>
<td>Vice President—Investments and Chief Investment Officer</td>
<td>Jagdeep Singh Bachher</td>
</tr>
<tr>
<td>Vice President—National Laboratories</td>
<td>Craig Pleasure</td>
</tr>
<tr>
<td>Vice President—Research and Innovation</td>
<td>Theresa A. Maldonado</td>
</tr>
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</table>

**Faculty Representatives to the Board of Regents**

<table>
<thead>
<tr>
<th>Name</th>
<th>Term</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mary Gauvain, Senate Chair</td>
<td>(2019-2021)</td>
</tr>
<tr>
<td>Robert B. Horwitz, Senate Vice Chair</td>
<td>(2020-2022)</td>
</tr>
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**Staff Advisers to the Board of Regents**

<table>
<thead>
<tr>
<th>Name</th>
<th>Term</th>
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</thead>
<tbody>
<tr>
<td>Ann Jeffrey, UC Berkeley</td>
<td>(2020-21)</td>
</tr>
<tr>
<td>Lucy Tseng, UCLA</td>
<td>(2020-21)</td>
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</tbody>
</table>

**Appointed Regents**

<table>
<thead>
<tr>
<th>Name</th>
<th>Term</th>
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<tbody>
<tr>
<td>Maria Anguliano</td>
<td>(2028)</td>
</tr>
<tr>
<td>Richard C. Blum</td>
<td>(2026)</td>
</tr>
<tr>
<td>Laphonza Butler</td>
<td>(2030)</td>
</tr>
<tr>
<td>Michael Cohen</td>
<td>(2030)</td>
</tr>
<tr>
<td>Gareth Elliott</td>
<td>(2025)</td>
</tr>
<tr>
<td>Cecilia Estolano</td>
<td>(2022)</td>
</tr>
<tr>
<td>Howard Peter Guber</td>
<td>(2029)</td>
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<tr>
<td>George Kieffer</td>
<td>(2021)</td>
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<tr>
<td>Sherry L. Lansing</td>
<td>(2022)</td>
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<tr>
<td>Richard Leib</td>
<td>(2026)</td>
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<tr>
<td>Hadi Makarechian</td>
<td>(2032)</td>
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<tr>
<td>Eloy Ortiz Oakley</td>
<td>(2024)</td>
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<tr>
<td>Lark Park</td>
<td>(2023)</td>
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<tr>
<td>John A. Pérez</td>
<td>(2024)</td>
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<tr>
<td>Janet Reilly</td>
<td>(2028)</td>
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<tr>
<td>Richard Sherman</td>
<td>(2025)</td>
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<tr>
<td>Jonathan Jay Sures</td>
<td>(2032)</td>
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<tr>
<td>Charlene Zettel</td>
<td>(2021)</td>
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</table>

**Vice President—Student Affairs**

<table>
<thead>
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<tbody>
<tr>
<td>Yvette Guillatt, Interim</td>
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<tr>
<td>Associate Vice President—Federal Government Relations</td>
<td>Christopher Harrington</td>
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<tr>
<td>Associate Vice President—State Government Relations</td>
<td>Kieran Flaherty</td>
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</tbody>
</table>

**Campus Chancellors**

<table>
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<tr>
<th>Name</th>
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<tbody>
<tr>
<td>Chancellor at Berkeley</td>
<td>Carol T. Christ</td>
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<tr>
<td>Chancellor at Davis</td>
<td>Gary S. May</td>
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<tr>
<td>Chancellor at Irvine</td>
<td>Howard Gillman</td>
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<tr>
<td>Chancellor at Los Angeles</td>
<td>Gene D. Block</td>
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<tr>
<td>Chancellor at Merced</td>
<td>Nathan Brostrom, Interim</td>
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<tr>
<td>Chancellor at Riverside</td>
<td>Kim A. Wilcox</td>
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<tr>
<td>Chancellor at San Diego</td>
<td>Pradeep K. Khosla</td>
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<tr>
<td>Chancellor at Santa Barbara</td>
<td>Sam Hawgood</td>
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<tr>
<td>Chancellor at Santa Barbara</td>
<td>Henry T. Yang</td>
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<tr>
<td>Chancellor at Santa Cruz</td>
<td>Cynthia K. Larive</td>
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**UC President—Engagement**

<table>
<thead>
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<th>Name</th>
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<tbody>
<tr>
<td>C. Cindy Fan, PhD</td>
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<tr>
<td>James F. Davis, PhD</td>
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<tr>
<td>Youlonda Copeland-Morgan, MBA</td>
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<tr>
<td>Monroe Gorden, Jr., JD</td>
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<tr>
<td>Roger M. Wakimoto, PhD</td>
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<tr>
<td>Anna Sprain Bradley, JD</td>
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<tr>
<td>Rhea Turteltaub, BA</td>
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<td>John C. Mazziotta, MD, PhD</td>
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<tr>
<td>Louise C. Nelson, JD</td>
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<tr>
<td>Roger G. Ebert, Research</td>
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<tr>
<td>Mary Osako, BA</td>
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<tr>
<td>Monroe Gorden, Jr., JD</td>
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<td>Youlonda Copeland-Morgan, MBA</td>
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<tr>
<td>James F. Davis, PhD</td>
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<td>David K. Yoo, PhD</td>
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<td>Pradeep K. Khosla</td>
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<tr>
<td>Cary L. Davis</td>
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Deans of the UCLA College and Schools

School of the Arts and Architecture
Brett B. Steele, AA Dip

School of Dentistry
Paul H. Krebsbach, DDS, PhD

Graduate School of Education and Information Studies

Christina A. Christie, PhD, Interim

Henry Samueli School of Engineering and Applied Science

Jayanth Y. Murthy, PhD

School of Law
Jennifer L. Mnookin, JD, PhD

College of Letters and Science

Senior Dean
David C. Schaberg, PhD

Humanities Division
David C. Schaberg, PhD

Life Sciences Division
Tracy L. Johnson, PhD

Physical Sciences Division
Miguel A. Garcia-Garibay, PhD

Social Sciences Division
Darnell M. Hunt, PhD

Undergraduate Education Division
Adriana Galván, PhD

John E. Anderson Graduate School of Management
Antonio E. Bernardo, PhD

David Geffen School of Medicine
Kelsey C. Martin, MD, PhD

Herb Alpert School of Music
Eileen L. Strempel, DM

School of Nursing
Linda P. Sarna, RN, PhD, FAAN

Meyer and Renee Luskin School of Public Affairs
Gary M. Segura, PhD

Jonathan and Karin Fielding School of Public Health
Ronald S. Brookmeyer, PhD

School of Theater, Film, and Television
Brian E. Kite, MFA, Interim

APPENDIX C: ENDOWED CHAIRS

Although UCLA is a public institution, private gifts are increasingly important in maintaining the quality of the three missions of teaching, research, and community service. Among the principal forms of private support are endowed professorships, or chairs, which support the educational and research activities of distinguished members of the faculty.

As this catalog is published, UCLA has 531 endowed chairs that have been approved by the Office of the President of the University of California, as follows:

School of the Arts and Architecture
Alma M. Hawkins Memorial Chair
S. Charles Lee Chair in Architecture and Urban Design
Harvey S. Perloff Chair
Lynda and Stewart Resnick Endowed Chair in Art

UCLA Art Council Professorship in Art

School of Dentistry
Alumni and Friends Oral and Maxillofacial Surgery Endowed Chair
Alumni and Friends Presidential Endowed Chair
Thomas R. Bales Chair in Orthodontics
Thomas K. Barber Endowed Chair in Pediatric Dentistry
Naomi and Jim Ellison Endowed Chair
Nobel Biocare Endowed Chair in Surgical Implant Dentistry
Dr. No-Hee Park Chair in Dentistry
Tarrson Family Endowed Chair in Periodontics
United Cerebral Palsy of Los Angeles Endowed Chair in Special Patient Care
Jack A. Weichman Chair in Endodontics
Bob and Marion Wilson Endowed Chair
Felix and Mildred Yip Endowed Professorship in Dentistry

Graduate School of Education and Information Studies

Martin and Bernard Breslauer Professorship in Bibliography
Allan Murray Carter Chair in Higher Education
George F. Kneller Chair in Education and Anthropology
George F. Kneller Chair in Education and Philosophy
Presidential Chair in Education and Diversity
Presidential Chair in Information Studies
Pritzker Family Endowed Chair in Education to Strengthen Families
UNESCO Chair on Global Learning and Global Citizenship Education
Wasserman Endowed Deanship of Education and Information Studies

Henry Samueli School of Engineering and Applied Science
L.M.K. Boelter Chair in Engineering
Vijay K. Dhir Chair in Engineering
Englekerk Presidential Endowed Chair in Structural Engineering

Traugott and Dorothea Frederking Endowed Chair in Cryogenics
Norman E. Friedmann Chair in Knowledge Sciences
Armond and Elena Hairapetian Chair in Engineering and Medicine
Leonard Kleinrock Chair in Computer Science
Evalyn Knight Chair in Engineering
Levi James Knight, Jr., Chair in Engineering
Fang Lu Endowed Chair in Engineering
Richard G. Newman AECOM Endowed Chair in Civil Engineering
Nippon Sheet Glass Company Chair in Materials Science
Northrop Grumman Chair in Electrical Engineering
Northrop Grumman Chair in Electrical Engineering/Electromagnetics
Northrop Grumman Opto-Electronic Chair in Electrical Engineering
Ralph M. Parsons Foundation Chair in Chemical Engineering
Jonathan B. Postel Chair in Computer Systems
Jonathan B. Postel Chair in Networking
Raytheon Company Chair in Electrical Engineering
Raytheon Company Chair in Mechanical Engineering
Charles P. Reames Endowed Chair in Electrical Engineering
Ben Rich Lockheed Martin Chair in Aeronautics
Rockwell Collins Chair in Engineering
John P. and Claudia H. Schauerman Endowed Chair in Engineering
William Frederick Seyer Chair in Materials Electrochemistry
Ronald and Valerie Sugar Dean of Henry Samueli School of Engineering and Applied Science
Ronald and Valerie Sugar Endowed Chair in Engineering Symantec Term Chair in Computer Science
Carol and Lawrence E. Tannas, Jr., Endowed Chair in Engineering
Carol and Lawrence E. Tannas, Jr., Endowed Term Chair in Engineering
William D. Van Vorst Chair in Chemical Engineering Education
Volgenau Chair for Engineering Innovation
Volgenau Endowed Chair in Engineering
Wintek Endowed Chair in Electrical Engineering
Neria and Manizheh Yomtobian Endowed Chair in Cancer and Risk Sciences

School of Law
Norman Abrams Endowed Chair in Law
Omar and Azmeralda Alifi Chair in Islamic Law
Harry Graham Balter Chair in Law
Barrall Family Endowed Chair in Tax Law and Policy
David A. Binder Endowed Chair in Clinical Law
Connell Professorship of Law
Jesse Dukeminier Professorship in Law
Dan and Rae Emmett Endowed Chair in Environmental Law
Rosalinde and Arthur Gilbert Foundation Endowed Chair in Civil Rights and Civil Liberties
Paul Hastings Endowed Chair in Business Law
Scott Waugh Endowed Chair in Division of Social Sciences
Eugen Weber Chair in Modern European History
Robert and Dorothy Wellman Chair in Medieval History
Bernice Wenzel and Wendell Jeffrey Term Endowed Chair in Behavioral Neuroscience
Bernice Wenzel and Wendell Jeffrey Term Endowed Chair in Cognitive Neuroscience
Bernice Wenzel and Wendell Jeffrey Term Endowed Chair in Developmental Neuroscience
Dean M. Willard Chair in Chemistry
Saul Weinstein Chair in Organic Chemistry
Linda and Fred Wulll Term Chair
Tadashi Yanai Endowed Chair in Japanese Literature
Kyoko Yuki and Masamichi Takesaki Endowed Chair in Operator Algebras
Stanley M. Zimmerman Endowed Chair in Economics and Finance
Jeffrey and Helo Zink Endowed Professional Development Term Chair in Chemistry

John E. Anderson Graduate School of Management
Allstate Chair in Insurance and Finance
Andersens Worldwide Chair in Management
John E. Anderson Chair in Management
Marion Anderson Chair in Management
Arden Realty Chair
Donnalis ‘86 and Bill Barnum Endowed Term Chair in Management
Robert D. Beyer ‘83 Chair in Management
California Chair in Real Estate and Land Economics
Edward W. Carter Chair in Business Administration
William M. Cockrum III Presidential Term Chair in Entrepreneurship
William M. Cockrum Professorship in Entrepreneurial Finance
James A. Collins Chair in Management
Warren C. Cordner Chair in Money and Financial Markets
Ernst and Young Chair in Accounting
Laurence D. and Lori W. Fink Endowed Chair in Finance
Ford II Chair in International Management
Joel Fried Chair in Applied Finance
Lee and Seymour Graff Endowed Professorship
Goldyne and Irwin Hearsh Chair in Money and Banking
Hans Hufschmid Chair in Management
IBM Chair in Management
Joseph Jacobs Chair in Entrepreneurial Studies
Neil Jacoby Chair in Management
Japan Alumni Chair in International Finance
Bud Knapp Marketing Professorship
Harry and Elsa Kunin Chair in Business and Society
J. Clayburn La Force Chair in Management
William E. Leonhard Chair in Management
Los Angeles Times Professor of Management and Policy
Justice Elwood Lui Endowed Term Chair in Management
Chauncey J. Medberry Chair in Management
Peter W. Mullin Chair in Management
Howard Noble Chair in Management
Paine Chair in Management
George Robbins Chair in Management
Sanford and Betty Sigoloff Chair in Corporate Renewal
Term Chair in Teaching Excellence
Term Chair in Management
UCLA Anderson Board of Visitors Term Chair in Management
UCLA Anderson Dean’s Term Chair in Management
UCLA Anderson Faculty Term Chair in Management
J. Fred Weston Chair in Finance
Harold Williams Chairs in Management
Ho-Su Wu Chair in Management
Bing ‘86 and Alice Liu Yang Endowed Term Chair in Management
Bing ‘86 and Alice Liu Yang Endowed Term Chair in Teaching Excellence

David Geffen School of Medicine
William S. Adams, MD, Chair in Medicine
Alhanson Chair in Ophthalmology
Mary D. Allen Chair in Vision Research
Lori Altschuler Endowed Chair in Mood Disorders
Wallis Annenberg Endowed Chair in Integrative East-West Medicine
Leonard Apt Endowed Chair in Pediatric Ophthalmology
Archstone Foundation Endowed Chair in Geriatrics
Stephen J. Ryan–Arnold and Mabel Beckman Foundation Chair
Casey Lee Ball Endowed Chair in Pediatric Nephrology
Wiley F. Barker Chair in Vascular Surgery
Dena Bat-Yacov Endowed Chair in Childhood Psychiatry and Biobehavioral Sciences
Ulrich Batszof, MD, Chair in Spinal Neurosurgery
Louis D. Beaumont Chair in Surgery
Donald P. Becker, MD, Term Chair in Neurosurgery
Jerome L. Belzer Chair in Medical Research
Lillian and Alvin L. Bergman Chair in Vascular Research
Bing Professorship in Urologic Research
Anna and Harry Borun Chair in Geriatrics/Gerontology
Bowyer Professorship in Medical Oncology
Saul Brandman Endowed Chair in Pulmonary Arterial Hypertension
Judson Braun Chair in Biological Psychiatry
Geri and Richard Brawerman Chair in Pediatric Neurosurgery
Gary L. Brinderson Family Chair in Neuro-Intensive Care
Eli and Edythe L. Broad Foundation Chair in Inflammatory Bowel Disease Research
Rubin Brown Chair in Pediatric Neurology
Burnett Family Chair

Thomas C. Calcaterra, MD, Chair in Head and Neck Surgery
Joseph Campbell Chair of Child Psychiatry
Iris Cantor Chair in Breast Imaging
Iris Cantor Endowed Chair in Women’s Health
Edward W. Carter Chair in Internal Medicine
Castera Chair in Cardiology
Vincent and Stella Coates Chair in Molecular Neurobiology
Tony Coelho Chair in Neurology
Ronald and Susan Cohen Term Chair in Childhood Development and Cerebral Palsy
Carol and James Collins Chair
Carol and James Collins Chair in Geriatric Medicine
William E. Connor Chair in Cardiothoracic Transplantation
Eliot Corday Chair in Cardiovascular Medicine and Science
Norman Cousins Chair in Psychoneuroimmunology
Crump Chair in Medical Engineering
Karen and Frank Dabby Endowed Chair in Ophthalmology
Dr. Alfonso Q. Davies Endowed Chair in Honor of Paul Crandall, MD, for Epilepsy Research
M. Philip Davis Chair in Microbiology and Immunology
Robert and Kelly Day Chair in Cardiothoracic Surgery
Robert and Kelly Day Chair in General Surgery
Robert and Kelly Day Chair in Surgical Outcomes
Robert and Kelly Day Chair in Transplantation
Jean B. deKernion, MD, Endowed Chair in Urology
Wini and William J. Dignam, MD, Endowed Chair in Obstetrics and Gynecology
Diller-von Furstenberg Family Endowed Chair in Human Genetics
Diller-von Furstenberg Family Endowed Chair in Precision Clinical Genomics
John Bartley Dillon, MD, Endowed Chair in Anesthesiology
Roy and Carol Doumani Chair
Roy and Carol Doumani Chair in Urological Oncology
Robert and Patricia Drake Endowed Chair in Geriatric Medicine
Dumont-UCLA Chair in Transplantation Surgery
Jeffrey J. Eckardt, MD, Term Chair in Orthopaedic Surgery
Max Factor Family Foundation Chair in Nephrology
Charles Kenneth Feldman Chair in Ophthalmology
Marjorie Fine, MD, Endowed Chair in Clinical General Surgery
Elise and Isaac Fogelman Endowed Chair in Pediatric Neurology
Dr. Daniel X. Freedman Administrative Chair in Academic Psychiatry
John Douglas Freedman Administrative Chair in Academic Psychiatry
Joan A. Freireich Chair of Leukemia Research
Endowed Chair
Joaquín M. Fuster Chair in Cognitive Neuroscience
David Geffen Chair in Informatics
David Geffen Chair in Medical Research
David Geffen School of Medicine Chair in Neuroscience
Laraine and David Gerber Chair in Ophthalmology
Maggie C. Gilbert Endowed Chair in Bipolar Disorders
Rosalinde and Arthur Gilbert Foundation Endowed Chair in Health-Care Delivery
Joan S. and Ralph N. Goldwyn Endowed Chair in Immunobiology and Transplantation Research
Victor Goodhill, MD, Chair in Head and Neck Surgery
Steven C. Gordon Family Chair in Parkinson’s Disease Research
Dolly Green Chair in Ophthalmology
Thomas N. Grove Chair in Anesthesiology
Maud Cady Guthman Chair in Cardiology
Muriel Harris Chair in Geriatric Psychiatry
Shirley M. Hatos Chair
Stefan Hatos Endowed Chair in Psychiatry and Biobehavioral Sciences
Gavin S. Herbert Endowed Chair for Macular Degeneration
Ernest G. Herman Chair in Ophthalmology in Advanced Lung Disease and Lung Transplantation
Ronald S. Hirshberg Chair in Translational Pancreatic Cancer Research
A. Ray Irving, Jr., MD, Chair in Clinical Ophthalmology
John Jergens Chair in Kidney Transplantation
Kaiser Permanente Chair in Community Medicine
Margaret Holden Jones Kanaar, MD, Chair in Cerebral Palsy
Solomon A. and Marie M. Kaplan Chair of Pediatric Endocrinology
Maddie Katz Endowed Chair in Palliative Care Research and Education
Ronald L. Katz, MD, Endowed Chair in Anesthesiology
Chizuko and Nobuyuki Kawata Chair in Cardiology
Dorothy and Robert Keyser Endowed Chair in Transplantation Surgery
Karl Kirchgesner Foundation Chair in Vision Science
Arnold W. Klein, MD, Chair in Dermatology
George F. Kneller Chair in Family Medicine
Kolokotrones Chair in Ophthalmology
John J. Kuiper Chair in Nephrology and Renal Transplantation
Grace and Walter Lantz Endowed Chair in Ophthalmology
Lydia and Harrison Latta Chair in Pathology
Lauren B. Leichtman and Arthur E. Levine Endowed Chair in Women’s Health Research
Eleanor Leslie Chair in Innovative Brain Research
Eleanor Leslie Chair in Pioneering Brain Research
Eleanor I. Leslie Chair of Neuroscience
Barbara Gerald Levey Endowed Chair
Gerald S. Levey, MD, Endowed Chair
Shirley LeVine Chair in Pediatric Education
Bert O. Levy Endowed Chair in Orbital and Ophthalmic Plastic Surgery
Walton Li Chair in Cornea and Uveitis
Lincy Foundation Chair in Clinical Gastroenterology
Lincy Foundation Distinguished Service Chair
William P. Longmire, Jr., Chair in Surgery
Meyer and Renee Luskin Chair in Migraine and Headache Studies
Gordon and Virginia MacDonald Distinguished Chair in Human Genetics
Charles H. Markham Chair in Neurology
Della Martin Chair in Psychiatry
Mattel Executive Endowed Chair in Pediatrics
David May II Chair in Ophthalmology
John Mazziotto Endowed Chair in Neurology
John Mazziotto, MD, PhD, Term Chair in Medicine
Henry Alvin and Carrie L. Meinhardt Chair in Pediatric Cardiology
Timothy A. Miller Chair in Plastic Surgery
Jeffrey Modell/Sidney Sheldon Chair in Immunology
Wesley S. Moore, MD, Endowed Chair in Endovascular Surgery
Moss Foundation Chair in Gastrointestinal and Personalized Surgery
Dr. Walter and Mrs. Kathryn Mullikin Chair in Orthopaedic Surgery
Jane and Marc Nathanson Endowed Chair in Medicine
James H. Nicholson Chair in Pediatric Cardiology
Mary Oakley Foundation Chair in Neurodegenerative Diseases
Frances M. O’Malley Administrative Chair in Neuroscience History
William and Patricia Oppenheim Presidential Chair in Pediatric Orthopaedics
Oppenheimer Brothers Chair
Helga and Walter Oppenheim Endowed Chair in Orthopaedic Oncology
Philip L. Palumbo Chair in Clinical Hepatology
Albert F. Parlow and David H. Solomon Chair for UCLA Program on Aging
Gail Patrick Endowed Administrative Chair in Brain Research
Samuel J. Pearlman, MD, and Della Z. Pearlman Chair in Head and Neck Surgery
Carl M. Pearson, MD, Endowed Chair in Rheumatology
Pennington Family Foundation Endowed Term Chair in Pediatrics
Frances and Albert Piansky Chair in Anatomy
Guitiara Pierpoint Endowed Chair in Intestinal Pulmonary Fibrosis
Thomas P. and Katherine K. Pike Chair in Addictive Studies
Elizabeth R. and Thomas E. Plott Chair in Gerontology
Edith Agnes Plumb Endowed Chair in Neurobiology
Harold and Pauline Price Chair in Ophthalmology
Pritzker Family Endowed Chair in Pathology
Shlomo Raz, MD, Chair in Urology
Resnick Chair in Eating Disorders
Lynda and Stewart Resnick Endowed Chair in Human Nutrition
Revlon Chair in Women’s Health
Leo G. Rigler Chair in Radiological Sciences
Sidney Roberts and Clara Szego Roberts Endowed Chair in Molecular/Cellular Endocrinology
Augustus S. Rose Chair in Neurology
Arthur L. Rosenbaum, MD, Chair in Pediatric Ophthalmology
Maxine and Eugene Rosenfeld Endowed Chair in Computational Genetics
Maxine and Eugene Rosenfeld Endowed Chair in Medical Education
Carol and Saul Rosenzweig Endowed Chair in Cancer Therapies Development
Stephen J. Ryan Arnold and Mabel Beckman Foundation Chair
Estelle, Abe, and Marjorie Sanders Chair in Cancer Research
Daljit S. and Elaine Sarkaria Endowed Chair in Diagnostic Medicine
Bernard G. Sarnat, MD, Endowed Chair in Craniofacial Biology
Arnold B. Scheibel, MD, Chair for Brain Research
Ethel Scheibel Chair in Neuroscience
William Scheibel Chair in Neuroscience Research and Treatment
Garry Shandling Chair in Pancreatic Diseases
Garry Shandling Chair in Pancreatic Surgery
Alison Shapiro Term Chair for Children’s Cognitive Development
Shapiro Family Term Chair in Developmental and Behavioral Pediatrics and Cerebral Palsy
Peter Shapiro Term Chair for Enhancing Children’s Developmental and Behavioral Health
Peter William Shapiro Chair for Center for Cerebral Palsy
W Donald and Ginny M. Shields Term Chair in Child Neurology
Fred Silton Family Chair in Movement Disorders
Simms/Mann Family Foundation Chair in Integrative Oncology
Jennifer Jones Simon Chair in Radiation Oncology
Norton Simon Chair in Biophysics
Jonathan Sinay Chair in Epilepsy
Henry E. Singleton Chair in Urology
Jack H. Skirball Chair in Multiple Sclerosis Research
Jack H. Skirball Chair in Ocular Inflammatory Diseases
Jack H. Skirball Chair in Pediatrics
P. Gene and Elaine Smith Endowed Chair in Alzheimer’s Disease Research
Rebecca Smith Chair in Molecular and Cellular Pathology
Rory Smith, MD, and Family Endowed Chair in Obstetric Gynecology
Smothrich Family Optometric Clinician-Scientist Chair
Jerome and Joan Snyder Chair in Ophthalmology
Joan and Jerome Snyder Chair in Cornea Diseases
Joan and Jerome Snyder Chair in Vision Science
George F. Solomon Professorship in Psychobiology
Spielberg Family Chair in Urologic Oncology
Nahman F. Sprague Chair in Molecular Oncology
Frances Stark Chair in Neurology
Fran and Ray Stark Foundation Chair in Digestive Diseases
Fran and Ray Stark Foundation Chair in Ophthalmology
Fran and Ray Stark Foundation Chair in Urology
Peter Starrett Term Chair in Medical Education
Rupert and Gertrude Steiger Vision Research Chair
Jules Stein Chair in Ophthalmology
Michael and Sue Steinberg Endowed Chair in Pediatric Allergy, Immunology, and Rheumatology
Ruth and Raymond H. Stotter Chair in Neurosurgery
Bradley R. Straatsma, MD, Endowed Chair in Ophthalmology
Dorothy and Leonard Strauss Endowed Chair in Gastroenterology in Memory of Gussie Borun Streisand Chair in Cardiology
Kelly Lee Tarantello Endowed Term Chair in Integrative Liver Transplantation
Dr. George Tarian Chair in Intellectual and Developmental Disabilities Research
Michael E. Tennenbaum Family Endowed Chair in Creativity Research
Paul I. Terasaki Chair in Surgery
Flora L. Thornton Chair in Vision Research
Leon J. Tiber, MD, and David S. Alpert, MD, Chair in Medicine
Vernon O. Underwood Family Chair in Ophthalmology
Philo Woodrow Van Wagoner Professorship
Variety Club-D. Barry Reardon Endowed Chair in Pediatric Hematology/Oncology
Richard D. and Ruth P. Walter Chair in Neurology
Richard D. and Ruth P. Walter Chair in Psychiatry
Charles Stewart Warren and Hildegard Warren Endowed Research Chair
Wasserman Professor of Ophthalmology
David Weil Chair in Psychiatry and Biobehavioral Sciences
Dr. Louis Jollyon West Chair in Psychiatry
Wildier Chair in Psychiatry and Neuroscience
Susan and David Wilstein Endowed Chair in Medicine
Susan and David Wilstein Endowed Chair in Rehabilitation Medicine
Judith and Robert Winston Chair in Pediatric Urology

Herb Alpert School of Music
Kenny Burrell Chair in Jazz Studies
Susan G. Covel and Mitchel D. Covel, MD, Chair in Music
Mickey Katz Endowed Chair in Jewish Music
Leo M. and Elaine Krown Klein Chair in Performance Studies
Mohindar Brar Sambhi Endowed Chair in Indian Music

School of Nursing
Lulu Wolf Hassenplug Chair in Nursing
Audrienne H. Moseley Chair in Biological Nursing Science
Audrienne H. Moseley Chair in Community Health Research
Audrienne H. Moseley Chair in Nursing
Audrienne H. Moseley Chair in Women's Health Research
Shapiro Family Endowed Chair in Developmental Disability Studies

Meyer and Renee Luskin School of Public Affairs
Marjorie Crump Chair in Social Welfare
Meyer and Renee Luskin Chair in Inequality and Democracy
Luskin Endowed Chair for Dean of the School of Public Affairs

Jonathan and Karin Fielding School of Public Health
Fred H. Bixby Chair in Population Policy
Jonathan and Karin Fielding Presidential Chair in Health and Equity
Paul Torrens Chair in Healthcare Management
Fred W. and Pamela K. Wasserman Chair in Health Policy and Management

School of Theater, Film, and Television
David C. Copley Chair for Study of Costume and Directing
Lew and Pamela Hunter/Jonathan and Janice Zakin Chair in Screenwriting
Rouben Mamoulian Visiting Chair in Film Directing
Rouben Mamoulian Visiting Chair in Theater Directing

UCLA Chancellor’s Office
James S. Coleman Chair in International Development Studies
Betsy Wood Knapp Chair for Innovation and Creativity

UCLA Institute of American Cultures
George and Sakaye Aratani Chair in Japanese American Incarceration, Redress, and Community
Ralph Bunche Chair in International Studies
Morgan and Helen Chu Endowed Chair in Asian American Studies
Helen and Morgan Chu Endowed Director’s Chair of the Asian American Studies Center
Korea Times–Hankook Ilbo Endowed Chair in Korean American Studies and Law

UCLA Alumni and Friends of Japanese Ancestry Chair in Japanese American Studies
Walter and Shirley Wang Chair in U.S./China Relations and Communications

UCLA International Institute
Rosalinde and Arthur Gilbert Foundation Endowed Chair in Israel Studies
Dong Soon Im and Mi Ja Im Endowed Chair in Korean Christianity
Paul I. and Hisako Terasaki Chair in Contemporary Japanese Studies
Terasaki Chair in U.S.–Japanese Relations

APPENDIX D: FACULTY HONORS

Distinguished Teaching Awards

Academic Senate Recipients
Each year the UCLA Alumni Association presents Distinguished Teaching Awards to Academic Senate faculty members. The highly prized awards are presented at the annual Andrea L. Rich Night to Honor Teaching, and selection of recipients is based on recommendations of the Academic Senate Committee on Teaching. Nominations are solicited from academic departments during fall quarter.

The Luckman Distinguished Teaching Awards Program was established in late 1991 after receipt of a generous gift from Harriet and Charles Luckman. Awards given for 1992 through 1997 were named the Luckman Distinguished Teaching Awards.

1961
John F. Barron (Economics)
Hector E. Hall (Physiology)
Kenneth N. Trueblood (Chemistry and Biochemistry)

1962
Charles W. Hoffman (Germanic Languages)
Thomas P. Jenkin (Political Science)
Ken Nobe (Chemical Engineering)

1963
Carl W. Hagge (Germanic Languages)
Wendell P. Jones (Education)
Robert H. Sorgenfrey (Mathematics)
Saul Weinstein (Chemistry and Biochemistry)

1964
Mostafa A. El-Sayed (Chemistry and Biochemistry)
Leon Howard (English)
Moshe F. Rubinstein (Civil and Environmental Engineering)

1965
E.A. Carlson (Biology)
1966
George A. Bartholomew (Biology)
William P. Gerberding (Political Science)
Hans Meyerhoff (Philosophy)
Joseph E. Spencer (Geography)

1967
Basil Gordon (Mathematics)
J.A.C. Grant (Political Science)
William Matthews (English)
David S. Saxon (Physics and Astronomy)
E.K.L. Upton (Physics and Astronomy)

1968
Edward W. Graham (Chemistry and Biochemistry)
W. James Popham (Education)
Sydney C. Rittenberg (Microbiology and Molecular Genetics)
Robert P. Stockwell (Linguistics)
Fred N. White (Physiology)

1969
Robert J. Finkelstein (Physics and Astronomy)
Douglas S. Hobbs (Political Science)
J.E. Phillips (English)
Raymond M. Redheffer (Mathematics)
Margret I. Sellers (Microbiology and Immunology)

1970
Ehrhard Bahr (Germanic Languages)
Joseph Cascarano (Biology)
B. Lamar Johnson (Education)
Daniel Kivelson (Chemistry and Biochemistry)
Richard D. Lehan (English)

1971
Vernon E. Denny (Chemical Engineering)
Peter N. Ladefoged (Linguistics)
Arthur D. Schwabe (Medicine)
Duane E. Smith (Political Science)
Andreas Tietze (Near Eastern Languages and Cultures)

1972
Barbara K. Keogh (Education)
James N. Miller (Microbiology and Immunology)
David S. Rodes (English)
Ned A. Shearer (Speech)
Charles A. West (Chemistry and Biochemistry)

1973
Kirby A. Baker (Mathematics)
David Evans (Chemistry and Biochemistry)
Albert Hoxie (History)
Nhan Levan (Electrical Engineering)
Judith L. Smith (Physiological Science)

1974
Robert B. Edgerton (Anthropology, Psychiatry and Biobehavioral Sciences)
David S. Eisenberg (Chemistry and Biochemistry)
Victoria A. Fromkin (Linguistics)
Robert C. Neerhout (Pediatrics)
Andrea L. Rich (Speech)

1975
Alma M. Hawkins (World Arts and Cultures)
Morris Holland (Psychology)
Paul M. Schachter (Linguistics)
Stanley A. Wolpert (History)
Richard W. Young (Neurobiology)

1976
Marianne Celce-Murcia (Teaching English as a Second Language and Applied Linguistics)
Jesse J. Dukeminier (Law)
George R. Guffey (English)
Marlyn L. Kourilsky (Education)
Chand R. Viswanathan (Electrical Engineering)

1977
Michael J. B. Allen (English)
Henry M. Cherrick (Dentistry)
Richard C. Maxwell (Law)
J. William Schopf (Earth and Space Sciences)
Verne N. Schumaker (Chemistry and Biochemistry)

1978
William R. Allen (Economics)
Michael E. Jung (Chemistry and Biochemistry)
J. Fred Weston (Management)
Thomas D. Wickens (Psychology)
Johannes Wilbert (Anthropology)

1979
Steven Krantz (Mathematics)
Paul I. Rosenthal (Communication Studies)
Christopher Salter (Geography)
James H. White (Mathematics)
Stephen C. Yeazell (Law)

1980
A.R. Braunmuller (English)
Fredi Chiappelli (Italian)
Kenneth L. Karst (Law)
Richard F. Logan (Geography)
Ronald F. Zernicke (Physiological Science)

1981
Arnold J. Band (Near Eastern Languages and Cultures)
Charles L. Batten, Jr. (English)
Lucien B. Guze (Medicine)
Gerald Lopez (Law)
Andy Wong (Dentistry)

1982
Dean Bok (Neurobiology)
Robin S. Liggert (Architecture and Urban Design, Urban Planning)
William Melnitz (Theater)
Joseph K. Perlloff (Medicine)
Karen E. Rowe (English)

1983
Claude Bernard (Physics and Astronomy)
Bryan C. Ellickson (Economics)
Robert S. Elliott (Electrical Engineering)
Albert D. Hutter (English)

1984
Charles M. Knobler (Chemistry and Biochemistry)

1985
Nhan Levan (Anthropology, Psychiatry and Biobehavioral Sciences)

1986
Charles A. Berst (English)
Michael J. Goldstein (Psychology)
Richard L. Sklar (Political Science)

1987
Lawrence W. Bassett (Radiological Sciences)
E. Bradford Burns (History)
Kenneth W. Graham, Jr. (Law)
Howard Suber (Film and Television)
Richard A. Yarborough (English)

1988
Alison G. Anderson (Law)
Ann L.T. Bergren (Classics)
Charles A. Berst (English)
Michael J. Goldstein (Psychology)
Richard L. Sklar (Political Science)

1989
John B. Garnett (Mathematics)
Kathleen L. Komar (Comparative Literature, Germanic Languages)
William G. Roy (Sociology)
Stephen Yenser (English)
Eric M. Zolt (Law)

1990
Peter M. Narins (Physiological Science)
Gary B. Nash (History)
John S. Wiley (Law)
Merlin C. Wittrock (Education)
Ruth Yeazell (English)

1991
Michael R. Asimow (Law)
Edward G. Berenson (History)
Robert A. Bjork (Psychology)
Margaret FitzSimmons (Urban Planning)
Kenneth R. Lincoln (English)

1992
Bruce L. Baker (Psychology)
Paul B. Bergman (Law)
Robert B. Goldberg (Molecular, Cell, and Developmental Biology)
Peter E. Kollock (Sociology)
Eugen Weber (History)
1993
Calvin B. Bedient (English)
Richard B. Kaner (Chemistry and Biochemistry)
Katherine C. King (Classics)
Bruce Schulman (History)

1994
David A. Binder (Law)
Jon P. Davidson (Earth and Space Sciences)
Melvin Oliver (Sociology)
Barbara L. Packer (English)
E. Victor Wolfenstein (Political Science)

1995
Noriko Akatsuka (East Asian Languages and Cultures)
Douglas Hollan (Anthropology)
V.A. Kolve (English)
Jerome Rabow (Sociology)
Paul V. Reale (Music)

1996
Walter Allen (Sociology)
Judith A. Carney (Geography)
William M. Gelbart (Chemistry and Biochemistry)
Phyllis A. Guzé (Medicine)
Peter B. Hammond (Anthropology)

1997
Uptal Banerjee (Molecular, Cell, and Developmental Biology)
Christine D. Gutierrez (Education)
Susan McClary (Musicology)
Arnold B. Scheibel (Neurobiology, Psychiatry and Biobehavioral Sciences)
Ivan Szelenyi (Sociology)

1998
George W. Bernard (Dentistry)
Verónica Cortínez (Spanish and Portuguese)
Wayne A. Dollase (Earth and Space Sciences)
Jayne E. Lewis (English)
Joshua S.S. Muldavin (Geography)

1999
Grace Ganz Blumberg (Law)
Alessandro Duranti (Anthropology)
Richard H. Gold (Radiological Sciences)
N. Katherine Hayles (English)
Bernard Weiner (Psychology)

2000
Scott H. Chandler (Physiological Science)
Efrain Kratik (Spanish and Portuguese)
Hector F. Myers (Psychology)
David Sklaneky (Law)
Robert N. Watson (English)

2001
Michael J. Colacurcio (English)
Glen M. MacDonald (Geography)
Kevin Terraciano (History)
James W. Trent (Education)
Brian Walker (Political Science)

2002
Christopher R. Anderson (Mathematics)
Steven G. Clarke (Chemistry and Biochemistry)
Anne K. Mellor (English)
Lee Todd Miller (Pediatrics)
Grant S. Nelson (Law)

2003
Joseph J. DiStefano III (Computer Science, Medicine)
Robin L. Garrel (Chemistry and Biochemistry)
A.P. Gonzalez (Film, Television, and Digital Media)
Mitchell B. Morris (Musicology)
Kirk J. Stark (Law)

2004
David B. Kaplan (Philosophy)
Kathryn A. Morgan (Classics)
Mark R. Morris (Physics and Astronomy)
Jesus Torrecilla (Spanish and Portuguese)
Joan Waugh (History)

2005
Roger Bourland (Music)
Robert G. Fovell (Atmospheric and Oceanic Sciences)
Elma González (Ecology and Evolutionary Biology)
Elizabeth A. Marchant (Spanish and Portuguese)
Mike Rose (Education)
Keith D. Stolzenbach (Civil and Environmental Engineering)

2006
Robert A. Gurval (Classics)
Patricia M. McDonough (Education)
Albert J. Moore (Law)
Kenneth A. Nagy (Ecology and Evolutionary Biology)
David L. Rigby (Geography)
Geoffrey W. Symcox (History)

2007
John A. Agnew (Geography)
Devon Carbado (Law)
Valerie J. Matsumoto (Asian American Studies, History)
Behzad Razavi (Electrical Engineering)
Daniel G. Solórzano (Education)
Blaire Van Valkenburgh (Ecology and Evolutionary Biology)

2008
Elizabeth L. Bjork (Psychology)
Peggy M. Fong (Ecology and Evolutionary Biology)
Linda C. Garro (Anthropology)
Teofilo F. Ruiz (History)
Benjamin J. Schwartz (Chemistry and Biochemistry)
Robert S. Winter (Music)

2009
Roger Detels (Epidemiology)
Luisa M. Iruela-Arispe (Molecular, Cell, and Developmental Biology)
Yung-Ya Lin (Chemistry and Biochemistry)
Mark B. Moldwin (Earth and Space Sciences)
Susan J. Piann (Applied Linguistics, Spanish and Portuguese)
Janice L. Reiff (History)

2010
Katsushi Arisaka (Physics and Astronomy)
Daniel T. Blumstein (Ecology and Evolutionary Biology)
John T. Caldwell (Film, Television, and Digital Media)
Albert J. Coprey (Chemistry and Biochemistry)
Jerry Kang (Law)
Steven P. Reise (Psychology)

2011
Ann E. Carlson (Law)
Andrew Christensen (Psychology)
Ian Krouse (Music)
Patricia E. Phelps (Integrative Biology and Physiology)
Yahya Rahmat-Samii (Electrical Engineering)
Philip W. Rundel (Ecology and Evolutionary Biology)

2012
C. Cindy Fan (Geography)
Brandon Koretz (Geriatric Medicine)
Mignon R. Moore (Sociology)
Claudia Parodi-Lewin (Spanish and Portuguese)
Jonathan P. Stewart (Civil and Environmental Engineering)
Christopher S. Tang (Management)

2013
Michael F. Carey (Biological Chemistry)
John J. Colicelli (Biological Chemistry)
Rachelle H. Crosbie-Watson (Integrative Biology and Physiology)
Jonathan H. Grossman (English)
Lynn A. Hunt (History)
David Delgado Shorter (World Arts and Cultures/Dance)
Megan McDonnell Sweeney (Sociology)

2014
Paul H. Barber (Ecology and Evolutionary Biology)
Earl G. Freymiller (Dentistry)
Neil K. Garg (Chemistry and Biochemistry)
Hilary A. Godwin (Environmental Health Sciences)
Hiroshi Motomura (Law)
Felicity A. Nussbaum (English)

2015
Robert W. Fink (Musicology)
Alan Garfinkel (Integrative Biology and Physiology, Medicine)
Thomas W. Gillespie (Geography)
Tyrone C. Howard (Education)
Daniel T. Kamei (Biological Chemistry)
Joanna C. Schwartz (Law)

2016
Joseph E. Bristow (English)
Mark S. Goosky (Materials Science and Engineering)
Frank A. Laskey (Molecular, Cell, and Developmental Biology)
Elisabeth C. Le Guin (Musicology)
James D. Lloyd-Smith (Ecology and Evolutionary Biology)
Steven A. Margulis (Civil and Environmental Engineering)

2017
Donald G. Buth (Ecology and Evolutionary Biology)
Alex C. Purves (Classics)
Eric Sung (Dentistry)
Abigail G. Saguy (Gender Studies, Sociology)
Ingrid Eagly (Law)
Alvaro Sagasti (Molecular, Cell, and Developmental Biology)

2018
Lorrie A. Frasure-Yokley (Political Science)
Christopher M. Kelty (Society and Genetics)
David W. MacFadyen (Comparative Literature, Musicology)
Vilma Ortiz (Sociology)
C.E.B. Reas (Design/Media Arts)
Sarah Abrevaya Stein (History)

2019
Anastassia Alexanderova (Chemistry and Biochemistry)
Kathleen Bawn (Political Science)
Gregory F. Grether (Ecology and Evolutionary Biology)
Katsuya Hirano (History)
Eric S. Sheppard (Geography)
Stephanie A. White (Integrative Biology and Physiology)

2020
E. Tendayi Achiume (Law)
Neveen S. El-Farra (Medicine)
MarySue V. Heilemann (Nursing)
David D. Kim (Germanic Languages)
Tamara J. M. Levitz (Comparative Literature)
Matthew D. Lieberman (Psychology)

Non-Academic Senate Recipients
In spring of 1985, the Office of Instructional Development sponsored the first awards to three instructors who are not members of the Academic Senate. These categories include lecturers, and adjunct and clinical faculty members. All non-Academic Senate faculty members are nominated by their departmental committees. Recipients are selected by the Academic Senate Committee on Teaching, using the same criteria as those used for Academic Senate members.

The Luckman Distinguished Teaching Awards Program was established in late 1991 after receipt of a generous gift from Harriet and Charles Luckman. Awards given for 1992 through 1997 were named the Luckman Distinguished Teaching Awards Program.

1987
Carol D. Berkowitz (Pediatrics)
Jeffrey I. Cole (Communication Studies)
Cheryl Giuliano (Writing Programs)

1988
Jeanne Gunner (Writing Programs)
Art Huffman (Physics and Astronomy)
David G. Kay (Computer Science)

1989
S. Scott Barchby (History)
Bonnie Lisle (Writing Programs)
Kenneth R. Pfeiffer (Civil Engineering, Psychology)

1990
Lisa Gerrard (Writing Programs)
Andres Durstenfeld (Biology)
Dorothy Phillips (Physiological Science)

1991
Marie S. Gregory (Speech)
Betty A. Lusieh (Chemistry and Biochemistry)
Cheryl Pfolt (Writing Programs)

1992
Janet Goodwin (Applied Linguistics, Teaching English as a Second Language)
Janette Lewis (Writing Programs)
Yinhua Wang (East Asian Languages and Cultures)

1993
Stephen Dickey (English)
Sondra Hale (Anthropology)
Jutta Landa (Germanic Languages)

1994
Steven K. Derian (Law)
Linda Jensen (Applied Linguistics, Teaching English as a Second Language)
Shelby Popham (Writing Programs)

1995
Nicholas Collaros (French)
Kristine S. Knaplund (Law)
Christopher Mott (English)

1996
Scott Bowman (Political Science)
Timothy Tangherlini (Scandinavian Section)
G. Jennifer Wilson (Honors, Undergraduate Programs)

1997
William McDonald (Film and Television)
Stuart Slavin (Pediatrics)
Sung-Ock Sohn (East Asian Languages and Cultures)

1998
Paul Frymer (Political Science)
George Gadda (Writing Programs)
Julie Giese (English)

1999
Patricia Gilmore-Jaffe (Writing Programs)
Emily Schiller (English)
Scott Votey (Emergency Medicine)

2000
Nicole Dufresne (French)
Thomas Holm (Law)
Richard P. Usatine (Family Medicine)

2001
George Ledine (Geography, International Development Studies)
Sandra Mano (Writing Programs)
L. Jean Perry (Molecular, Cell, and Developmental Biology)

2002
Steven Hardinger (Chemistry and Biochemistry)
Colleen K. Keenan (Nursing)
Cynthia Merrill (Writing Programs)

2003
Marjorie A. Bates (Chemistry and Biochemistry)
Anita McCormick (Writing Programs)
Richard Stevenson III (Dentistry)

2004
Andrew Hsu (Philosophy)
Kimberly Jansma (French and Francophone Studies)
Jennifer Westbay (Writing Programs)

2005
Susan Griffin (Writing Programs)
William Grisham (Psychology)
Anahid Keshishian (Near Eastern Languages and Cultures)

2006
Roger E. Bohman (Molecular, Cell, and Developmental Biology)
Jo Ann Damron-Rodriguez (Social Welfare)
Gerald Wilson (Ethnomusicology)

2007
Nancy Ezer (Near Eastern Languages and Cultures)
Fred A. Hagigi (Health Services)
Eric Marin (Film, Television, and Digital Media)

2008
Leigh C. Harris (Writing Programs)
Chi Li (Ethnomusicology)
Robert B. Trelease (Pathology and Laboratory Medicine)

2009
Brent Corbin (Physics and Astronomy)
Laurence Lavelle (Chemistry and Biochemistry)
Fariba Younal (Dentistry)

2010
Patrick D. Goodman (Law)
Amy H. Kaj (Medicine)
Rory M. Kelly (Film, Television, and Digital Media)

2011
Latifeh E. Hagigi (Near Eastern Languages and Cultures)
Dario Nardi (Anthropology)
John (Jay) Phelan (Life Sciences Core Curriculum)
Appendix D: Faculty Honors / 815

2012
Stuart Biegel (Education)
Ronald Cooper (Integrative Biology and Physiology)
Michael Lazarus (Medicine)

2013
Randall J. Fallow (Writing Programs)
Ganna Kudyma (Slavic Languages and Literatures)
Joan R. Schleper (Nursing)

2014
Teddi L. Chichester (Writing Programs)
Robert F. Foster (Management)
Mitchem A. Huehls (English)

2015
Mary Paige Greene (Mathematics)
Eric H. Sussman (Management)
Pavel Wonsowicz (Law)

2016
Ting-Ling Chang (Dentistry)
Gregory J. Rubinson (Writing Programs)
Jeremy D. Smoak (Near Eastern Languages and Cultures)

2017
Mary F. Corey (History)
Benjamin James Lewis (Linguistics)
Jason D. Napolitano (Medicine)

2018
Karen J. Cunningham (English)
Zhao Li (Chemistry and Biochemistry)
Dana Cairns Watson (Writing Programs)

2019
Jennifer Casey (Chemistry and Biochemistry)
Juliet A. Falce-Robinson (Spanish and Portuguese)
Jorja J. Leap (Social Welfare)

2020
Cindy C. Kratzer (Education)
John G. Branstetter (Political Science)
Margaret E. Davis (Writing Programs)

Gold Shield Faculty Prize
The $30,000 Gold Shield Faculty Prize, an award for academic excellence, was created by the Gold Shield Alumnae of UCLA in celebration of their fiftieth anniversary in 1986. The prize is funded by an endowment of $250,000 raised by Gold Shield for this purpose, which has grown to over $450,000. Guidelines provide that the prize “recognize and reward UCLA faculty members who have demonstrated extraordinary accomplishment in teaching and in research or creative activity...and who have made a significant contribution to undergraduate education.” Preference for recipients is given to faculty members in mid-career, who do not often receive the extra professional incentives available to distinguished senior faculty.

The Gold Shield Faculty Prize is awarded to each recipient for scholarly use. The awardee is selected every year by a committee of peers appointed by the Academic Senate. Student and Gold Shield representatives are included. Recipients must come from fields that have undergraduate programs at UCLA.

1986-88
Michael E. Jung (Chemistry and Biochemistry)
1988-90
Patricia M. Greenfield (Psychology)
1990-92
Jeffrey C. Alexander (Sociology)
1992-94
J. William Schopf (Earth and Space Sciences)
1994-96
Albert R. Braunmuller (English)
1996-98
Peter M. Narins (Physiological Science)
1998-00
Robert B. Goldberg (Molecular, Cell, and Developmental Biology)
2000-02
Utpal Banerjee (Molecular, Cell, and Developmental Biology)
2002-04
Richard B. Kaner (Chemistry and Biochemistry)
2004-06
Andrea M. Ghez (Physics and Astronomy)
2006-08
Robert N. Watson (English)
2007-09
William J. Kaiser (Electrical Engineering)
2008-10
Alicia Gaspar de Alba (Chicana and Chicano Studies)

2009-11
Robin L. Garrell (Chemistry and Biochemistry)
2010-12
David H. Gere (World Arts and Cultures)
2011-13
Matthew D. Lieberman (Psychology)
2012-14
Kevin B. Terraciano (History)
2013-15
Luisa M. Iruela-Arispe (Molecular, Cell, and Developmental Biology)
2014-16
Brenda Stevenson (History)
2015-17
Neil K. Garg (Chemistry and Biochemistry)
2016-18
Charlene Villaseñor Black (Art History)
2017-19
Daniel T. Blumstein (Ecology and Evolutionary Biology)
2018-20
Daniel M.T. Fessler (Anthropology)
2019-21
Paul H. Barber (Ecology and Evolutionary Biology, Environment and Sustainability)
2020-22
Janet M. O’Shea (World Arts and Cultures/Dance)

UCLA University Professors
The title University Professor is reserved for scholars of international distinction, who are recognized and respected as teachers of exceptional ability. Appointments may be made from distinguished tenured faculty. University Professors are appointed by the Regents, at the recommendation of the president after consultation with the chancellor and Academic Senate of the appointee’s home campus.

Two UCLA faculty have been appointed University Professors.
M. Frederick Hawthorne, PhD, Emeritus
Chemistry and Biochemistry
Owen N. Witte, MD
Microbiology, Immunology, and Molecular Genetics
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